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CITY OF WINNIPEG

REPORT

of the

Health Department

For the Year ending
31st December, 1938

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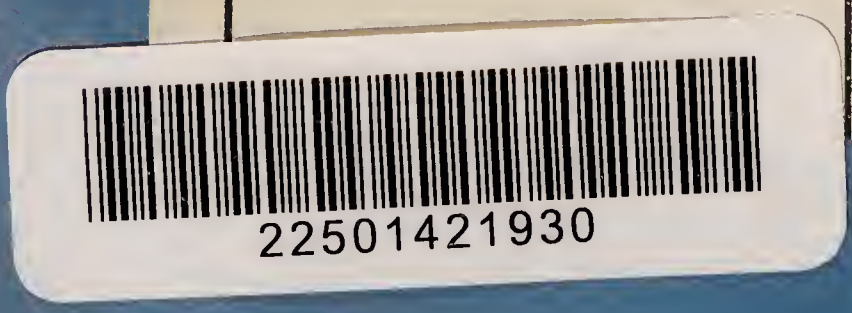

CITY OF WINNIPEG

REPORT

of the

HEALTH DEPARTMENT

For the Year ending
31st December, 1938

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COMMITTEE ON HEALTH

1938

Alderman M. (Mrs. R. F.) McWilliams, Chairman.

Alderman F. G. Thompson.

Alderman C. R. Smith.

Alderman J. Simpkin.

*Alderman D. M. Elcheshen.

**Alderman D. McLean.

†Alderman A. Bilecki.

Alderman M. J. Forkin.

His Worship Mayor John Queen (ex-officio).

*Resigned August 16, 1938.
**Appointed Sept. 6, 1938, in place of Ald. Elcheshen.
†Appointed Nov. 28, 1938, in place of Ald. McLean.

STAFF

(December, 1938)

Medical Health Officer

A. J. Douglas, M.D.

Laboratory

Deputy Medical Health Officer and Bacteriologist—M. S. Lougheed, M.D.
Senior Laboratory Asst.—Miss M. Wilson.
Junior Laboratory Asst.—C. E. Van Engel.

District Physicians

W. Turnbull, M.D.
O. C. Dorman, M.D.

Communicable Diseases Division

Chief Inspector—W. T. Watt.
Inspector—C. H. Hargrave.
" —H. H. Marshall.
" —H. Robinson.

Tuberculosis Nurse—Miss K. M. Vanetta.
" " —Miss H. Smyth.
" " —Miss M. A. Simpson.
Inspectors' Clerk—G. Moore.
Junior Clerk—W. Taylor.

Sanitary Inspections Division

Chief Inspector—A. Officer.
Supervising Inspector—A. Aitken.
" " —J. Shepherd.
Inspectors: F. C. Austin.
B. Davies.
G. W. Kelly.
E. Officer.

Housing and Supervising Inspector—P. Pickering.
Inspectors: D. G. Johnson.
A. Cross.
A. Martin.
R. H. Keena.
R. Craig.

STAFF—(Continued)

Dairy Division

Chief Inspector—E. C. Brown*
Inspectors: J. M. Jackson.
A. G. Isaac.
J. R. Bentham.

Food Division

Chief Inspector—R. McQuillan.
Inspectors: G. R. Mines.
L. G. Williams.
*Retired on Pension July 1st, 1938.

Bureau of Child Hygiene

Manager—A. G. Lawrence.
Nurses: Miss M. M. Wonnacott.
Miss A. J. Attrill.
Miss L. Spratt*
Miss C. Maddin.
Miss A. Moore.
Miss C. Munro.
Miss L. A. Schwalm.
Miss E. A. Bennett.
Miss M. M. Harper.
Nurses: Miss A. M. Wilkins.
Miss H. A. Carter.
Mrs. C. E. Smith.
Miss M. B. Bowles.
Dietitian—Miss M. A. Graham.
Asst. Dietitian—Miss M. Dick.
Senior Helper—Mrs. J. MacDonald.
Junior Helper—Mrs. H. Twist.
" " —Mrs. C. E. Grant.
Caretaker—F. C. White.

Attending Physician—R. F. Rorke, M.D.
" " —F. G. Schwalm, M.D.

*Retired on Pension, Sept. 1st, 1938.

Division of Records and Statistics

Secretary—A. G. Lawrence.
Clerk—Miss V. Orr*
" —Miss P. Dorward**
*Resigned August 31, 1938.
Junior Clerk—C. Rayment.
" " —Miss M. Robinson***
**Promoted Sept. 1, 1938.
***Appointed Sept. 1, 1938.

Street Cleaning Division

Chief of Division—E. A. Wood.
Supt. of Scavenging—J. Shannon.
Supt. of Street Cleaning—
W. R. McAlpine.
Stable Foreman—G. T. Wood.
Yard Foreman—A. Knight.
Foreman—N. Jack.
" —A. M. Dick.
" —G. Whitear.
" —S. H. Spooner.
4 Trailer Truck Drivers.
6 Truck Drivers.
19 Teamsters.
1 Single Horse Driver.
*Pensioned April 1st, 1938.
**Promoted April 1st, 1938.
Senior Clerk—J. J. Higgins.
Junior Clerk—Miss N. E. Deering.
" " —E. W. Parker.
Incinerator Foreman—J. M. Sinclair.
" " —H. Ritchie.
Foreman—G. Duncan.
" —T. Smith.
" —G. Clark*
" —J. R. Halliday**
Sub-Foreman—C. Coutts.
12 Incinerator Firemen.
32 Helpers.
2 Stablemen.
6 Skilled Laborers.
2 Nuisance Ground Caretakers.

Comfort Stations Division

8 Regular Men attendants.
4 Part-time Men Attendants.
8 Regular Women Attendants.
4 Part-time Women Attendants.

Report of Medical Health Officer

City Health Department,
Winnipeg, Man., April 24, 1939.

Chairman and Members of the
Committee on Health.

Madam and Gentlemen:

I have the honour to submit for your consideration the 31st Annual Report of the Health Department for the year 1938. This includes the reports of the heads of divisions and a statement of the cost of the year's work.

SUMMARY OF VITAL STATISTICS

Corrected and Crude Figures

Area of City: Land, 14,865 acres; water, 422 acres; total, 15,287 acres.
(23.9 square miles)

	1938	1937
Population (City Assessor's figures)	222,454	223,103
Persons per acre of land	14.96	15.00

Corrected

Deaths, excluding stillbirths	1,612	1,641
Corrected rate per 1,000 population	7.25	7.35
Deaths of infants under 1 year	111	130
Corrected infant mortality rate per 1,000 live births..	40.6	47.0
Deaths, measles, scarlet fever, whooping cough and diphtheria, combined	3	13
Corrected rate per 100,000 population	1.3	5.8
Births, excluding stillbirths	2,732	2,766
Corrected live birth rate per 1,000 population	12.28	12.40
Stillbirths	89	85
Corrected rate per 1,000 live births	30.4	30.7
Natural increase, excess of births over deaths	1,120	1,125
Corrected rate per 1,000 population	5.03	5.04
Marriages, bridegrooms resident in Winnipeg	1,864	.....
Corrected rate per 1,000 population	8.38	.....

Crude

Deaths, excluding stillbirths	1,889	1,908
Rate per 1,000 population	8.49	8.55
Deaths of infants under 1 year	154	171
Infant mortality rate per 1,000 live births	41.3	46.4
Births, excluding stillbirths	3,729	3,686
Rate per 1,000 population	16.76	16.52
Stillbirths	112	102
Rate per 1,000 live births	30.03	27.67
Marriages	2,935	2,906
Rate per 1,000 population	13.19	13.02

CONTROL AND PREVENTION OF DISEASE, 1938

Summary

(a)	Personal Services	$ 86,991.52
(b)	Outside Services	5,049.97
(c)	Material, supplies and repairs	9,341.50
(e)	Fuel, water, light and power	1,045.03
(h)	Auto expense	1,674.43
		$104,102.45

Expenditure by Division

C – 1.	Administration and Statistics	$ 10,938.92
C – 2.	Bacteriological Laboratory	6,283.43
C – 3.	Treatment and Prevention of Communicable Diseases..	17,180.88
C – 4.	Sanitary Inspection	22,883.80
C–5–1.	Dairy Inspection	6,557.46
C–5–2.	Food Inspection	6,283.50
C – 6.	Bureau of Child Hygiene	28,775.53
C – 7.	Medical Relief	5,198.93
	Gross Expenditure, Control and Prevention of Disease	$104,102.45

Revenue

Fees for Laboratory work	$ 69.50	
Sale of Infants' Feedings at Milk Depot	354.55	
		424.05
		$103,678.40

Net Cost per Capita, 46.6c.

COMMUNICABLE DISEASES

The total number of reports of Communicable Diseases for the year ending December 31, 1938, was 3,718 cases and 67 deaths; also reported were 186 cases and 38 deaths of non-resident patients.

This summary shows the Winnipeg cases and deaths, and the rates per 100,000 population and per 100 cases. Non-resident cases and deaths admitted to the City hospitals from outside municipalities are also shown in this summary.

	City Cases and Deaths, including Winnipeg citizens treated in Outside Institutions				Non-residents	
	Cases	Deaths	Rate per 100,000 pop.	Rate per 100 cases	Cases	Deaths
Cerebrospinal Fever	.....	....	.....	.....	3	3
Chickenpox	1,861	1	.4	.05	4	....
Diphtheria	87	1	.4	1.1	23	4
Diphtheria Carriers	14	....	.....	.....	4	....
Encephalitis, Infectious	1	2	.9	.....	....	....
Erysipelas	40	1	.4	2.5	6	1
Influenza	.....	12	5.4	.....	1	1
Measles	45	....	.....	.....	7	....
Mumps	833	....	.....	.....	2	....
Ophthalmia Neonatorum	2	....	.....	.....	....	....
Poliomyelitis	49	3	1.3	6.0	18	7
Puerperal Fever	.....	....	.....	.....	....	....
Scarlet Fever	450	....	.....	.....	75	....
Smallpox	.....	....	.....	.....	1	....
Tubersulosis, Pulmonary	117	44	19.8	37.6	19	18
Tuberculosis, All Forms	.....	55	24.7	.....	....	....
Trachoma	1	....	.....	.....	1	....
Typhoid Fever	6	1	.4	16.6	7	3
Paratyphoid Fever	1	....	.....	.....	....	....
Undulant Fever	1	....	.....	.....	....	....
Whooping Cough	198	2	.9	1.0	15	1

Cerebrospinal Fever—We have never suffered an outbreak of this disease in Winnipeg, but this is the first in many years that we have not recorded a single case. During the preceding year, four cases and one death were recorded.

The average number of cases recorded, "including non-residents," over a period of twenty years is five cases per year. Deaths, over the same period, 2.6 per year.

Chickenpox—Eighteen hundred and sixty-one cases and one death were reported as compared with nine hundred and fifty-four cases and no deaths for the preceding year. One thousand, five hundred and twenty-nine cases of the total recorded appear in the first half of the year. Owing to the fact that Smallpox was being recorded within the province, we have placed a close check on all reported cases during the year.

It continued to be reported in large numbers from January to July, the maximum number of four hundred and sixty-five cases being recorded in June.

Fatalities are unusual, the one recorded being that of a child, three months old.

Diphtheria—The total number of cases of Diphtheria reported during the year was Eighty-seven, deaths one, as compared with Forty-seven cases and three deaths during the preceding year.

The increase in case incidence took place during the last three months of the year when Forty-eight cases were reported during that time. Associated with this increase during the latter part of November and the first week in December, a number of cases were recorded whose central focal point of infection appeared to be in Grade X of one of the City High Schools.

In this outbreak eight clinical cases developed, ages ranged from fifteen to eighteen years. Three carriers were located through swabbing; nine were termed "suspicious"; a number were quarantined with inflamed throats.

Two hundred and twenty-five swabs were examined, all taken from classroom contacts. It was evident that a number of the secondary cases developed as the result of the attendance of pupils suffering from sore throats and before isolation had taken place. Seven of the eight cases were distributed throughout the Grade X classes.

The following table shows incidence of cases and deaths by wards, 1936-1938:

	1938		1937		1936	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Ward 1	16	..	11	..	23	1
Ward 2	44	1	21	2	31	1
Ward 3	26	..	13	1	33	1
Institutional	1	..	2	..	5	..
Non-resident	23	4	16	1	31	3
Total	110	5	63	4	123	6

Sex Incidence—Male 37, Female 50. (City cases)

Age Incidence—0 – 4, 22; 5 – 9, 22; 10 – 14, 6; 15 and over, 37.

Pre-school age children who had received Toxoid treatment and who were registered as having suffered an attack of Diphtheria totalled seven. In this same age group twenty-two children who had not had the treatment developed Diphtheria. In the School Age group, eight had received treatment and twenty-three had not. In the Adult group, twenty-six cases had not received treatment at any previous time.

All received hospital treatment. Of the fifteen children who had received Toxoid treatment and were recorded as having suffered an attack of Diphtheria, two were reported as having positive swabs but not requiring anti-toxin. Ten were admitted as suspects and later classified as cases, leaving three admitted as clinical diphtheria.

The years when treatment was given is as follows:—

Year	1927	1932	1933	1934	1935	1936	1937	1938
Cases	1	1	3	2	1	3	2	2

Secondary cases totalled two. Eighty were admitted to hospital as suspects. Of this number forty-four were classified as Diphtheria, thirty-one diagnosed as infection other than Diphtheria and five remained in original classification.

Diphtheria Prevention—It has been thought for some time that the spring months of the year would be a more suitable time to conduct our Toxoid campaign. We made the change during 1938, but as we had just completed our Fall campaign in December, 1937, the response naturally fell off quite noticeably. In the Spring campaign of 1939 it is to be hoped that the citizens will take advantage of the ground lost during 1938. Many enquiries were made during the fall months, this would suggest that some of our citizens knew of the service in the past and are Toxoid conscious. For information concerning Toxoid treatments and distribution by wards, see table in another part of this report.

Encephalitis, Infectious—This disease has not taken on serious proportions for many years. One case and two deaths being reported against no cases and two deaths during 1937.

Influenza—There were twelve cases and twelve deaths recorded during the year, a reduction over the figures for the preceding year when twenty-eight cases and twenty-four deaths were recorded. Reports for 1938 were received in all the months of the year excepting June to August.

With one exception, a child of three, all were in the age classification over thirty-five years.

Measles—The total number of measles cases reported for the year was forty-five, deaths none, as compared with one thousand, three hundred and twenty-six cases and three deaths. This was to be expected in view of the fact that we had an epidemic of major proportions during 1936 which terminated June, 1937.

Poliomyelitis—The total number of cases reported for the year was forty-nine, deaths three, as compared with fifty-four cases and four deaths for the preceding year. This disease, which used to make a periodic visit, has for some reason not explainable, appeared in epidemic form for the third successive year. Its appearance has run fairly true to season and type.

While cases and deaths numbered almost as many as the preceding year, their division during the months of August, September and October, 1938, was on a more even basis of distribution. The curve is flattened out and instead of a peak month of forty cases, we have three months with an average of fourteen cases, reported by symptoms, nineteen, fifteen and nine respectively. This may or may not be of some significance.

It has been noticed in the past that the disease appears to work outward from a central focal point. This is borne out by the following figures.

	1st Mile radius		2nd Mile radius		3rd Mile radius		4th Mile radius	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1936	31	2	27	..	7	..	..	..
1937	19	..	20	2	11	2	..	..
1938	5	2	20	..	16	1	2	..
Totals	55	4	67	2	34	3	2	..

In the above table, 1938 figures do not include three cases infected outside.

Of the forty-nine cases recorded, three died, sixteen suffered from paralysis to some degree, thirty made a complete recovery.

In analysing the time between symptoms and date of doctor's call in the sixteen cases of residual paralysis, we find the doctor was called in on the first day of symptoms in four cases. The remaining twelve calls varied from one to ten days.

In the thirty cases where complete recovery is recorded, the department received the report in most instances over forty-eight hours after first symptoms were noted.

Forty-five suspect cases were recorded. Of this number, fourteen patients developed definite symptoms of infection of disease other than Poliomyelitis; the remaining thirty-one being left in the classification of suspect.

What appeared to be a localized outbreak took place in the south end of the city, ten cases and one death being reported between August 9th and August 21st.

Careful enquiries failed to reveal any common contact or other suspected source of infection. Secondary cases were recorded in two of the homes.

Much detail matter has been gathered concerning Poliomyelitis but we are unable to add any enlightment on the disease.

The procedure of hospitalization of cases and suspects; quarantine and observation of contacts, checking food handlers and holding in quarantine all exposed school children, disinfection and general supervision and enquiry into all channels associated with reported cases was conducted as in former years.

We consider it most fortunate that Winnipeg has been able to provide 100% hospital care and treatment for all cases and suspect cases.

We submit as formerly spot maps and charts; also tabulation showing Age and Sex incidence and incidence by Wards. Table showing duration of stay in hospital of suspect cases.

It may be noted that the ratio of suspect or unapparent cases to reported cases is lower this year than it was in 1936 and 1937.

Scarlet Fever—The total number of cases reported during the year was four hundred and fifty, deaths none, as compared with six hundred and forty-seven cases and two deaths for the preceding year.

Non-resident cases totalled seventy-five, deaths none. These are not related to the above total.

The type has remained mild and is distributed over all Wards. We entered the year with the low figure of forty-three cases reported in January, nevertheless, we were kept on the alert checking a number of small outbreaks, one of which was in an institution for children and three in the public schools.

Of the total four hundred and fifty cases reported, two hundred and seventy-six were school children. Secondary cases totalled forty-six, return cases totalled eight and unrecognized cases totalled twenty-seven.

One hundred and twenty-one cases were reported as "suspect." Of this number sixty-two gave a final diagnosis of Scarlet Fever, while fifty-nine remained unclassified. This is a high percent of the total but it is evident that close checking on the part of parents and school visiting nurses in bringing such to the notice of the department is largely responsible for keeping the spread of this disease down to a low level.

Smallpox—There were no city cases of Smallpox. A non-resident suspect, later declared a case, was removed to the hospital. Contacts within the city were vaccinated and kept under observation.

Pulmonary Tuberculosis—The total number of city cases recorded for the year was one hundred and seventeen, deaths forty-four, as compared with one hundred and thirty-six cases and fifty-four deaths for the preceding year.

Non-resident cases and deaths registered in the city were nineteen and eighteen respectively, as compared with fifteen and fourteen respectively in 1937.

A complete tabulation showing sources of ascertainment of cases, time cases are known to department, age and sex incidence and distribution of cases, will be found in another part of this report.

The outstanding feature in this section of our work is the low death rate of nineteen per 100,000 population. We do not attempt to explain this situation but submit figures from the 1930 Annual Report for comparison with the rates struck by Wards for this year.

In 1930, city cases totalled two hundred and three, deaths eighty-three. The corrected death rate was fifty-one per 100,000 population.

The rates by Wards are as follows:—

	Cases		Deaths	
	1930	1938	1930	1938
Ward 1	45.8	39.2	22.1	23.0
Ward 2	117.9	63.5	54.6	22.5
Ward 3	121.5	54.7	40.5	13.6

It will be noted from these figures that case rates have fallen in Ward 2 and Ward 3 very much out of proportion to that of Ward 1. Also in the death rate figures there is even a greater reduction in the figures for Ward 2 and Ward 3 as compared with Ward 1, which shows a rate greater than that of 1930.

It is perhaps a freak situation and may not be maintained. What relation the change has to these years of depression and unemployment we can only hazard a guess. The activity of the various forces goes on,—Hospital and additional beds in Sanatoria have been added over these years, clinic services have been increased, visiting and checking contacts has been followed up more closely, unemployment relief has put a great many citizens on forced idleness and while they have been idle the larder has been provided for on a fair basis. These are some of the influences that may account in part for this improvement. At the same time some credit must be given to the advanced methods of meeting the cases and a more noticeable desire on the part of the public to co-operate in the work.

Typhoid Fever—Six cases and one death were recorded during the year. These cases were spread over April, May, July and September. Two cases received their infection while residing outside the city. Two had visited summer resorts, two remained untraced.

Whooping Cough—The total number of cases reported was one hundred and ninety-eight, deaths two, as compared with one thousand and sixty-seven cases and three deaths for the preceding year.

While it is satisfactory to reduce the number of cases of Whooping Cough, it is still necessary to remind the citizens that this disease is often fatal in the very young. Again we record the death of two babies under one year of age.

Medical Relief—District Physicians calls to indigent sick totalled seven hundred and nine as compared with six hundred and fifty-nine for the preceding year. Included in this branch of work are calls referred to the Margaret Scott Nursing Mission, these totalled one hundred and fourteen as against one hundred and forty-four for 1937.

Calls referred to the office for check and diagnosis totalled four hundred and ninety-five as compared with five hundred and forty-two for 1937.

Total persons receiving medical attention in the offices within the department was seven hundred and four. Vaccinations totalled two thousand and sixty-seven and vaccine tubes distributed to private physicians totalled nine hundred and eleven. Insulin was supplied to two hundred and fifty-two persons, of this number one hundred and eighty-nine were on the free list. The demands in this service continue to show an increase each year since its inception in 1926.

The amount expended on drugs for indigents totalled Two thousand and fifty-eight Dollars. Other supplies distributed from the office include serums and vaccines used in the treatment and prevention of disease, rubbing alcohol, disinfectant, dressings, ointments, etc., also refills, holders, handkerchiefs and sputum containers to tuberculous patients.

Diphtheria antitoxin distributed to physicians totalled seven hundred and seventy-eight thousand units. There was little demand for Scarlet Fever Immunization Toxin, one hundred and nineteen single person packets were supplied to physicians, and eighteen six person packets supplied to institutions.

Nine thousand, six hundred and five quarts of milk were distributed to fifty-six needy tuberculous patients for all or part of the year. School certificates issued from the general office totalled three thousand, four hundred, as compared with three thousand and ninety-five during 1937.

Legislation Enacted—Regulations and Amendments as passed by the Provincial Board of Health to the Consolidated Regulations under "The Public Health Act."

The Regulations respecting the cutting, storage, delivery, and sale of ice for domestic or refrigeration purposes were repealed and new Regulations promulgated. As these are somewhat lengthy and perhaps not of sufficient general interest, they are not set forth here. Briefly, the applicant for a permit must state the proposed source of the ice, and its location, method of handling, facilities for storage, etc. Provision is made for analysis of the water or ice to be used; buildings for storage to be sanitary, closet and wash basin accommodation to be provided; wagons and other vehicles to be clean and sanitary; clean tongs and spoons to be used instead of fingers; ice not to be used from any artificial reservoir or pond without the consent of the Health Officer; individuals who purchase ice from storage buildings for private use to cover or properly protect such ice from dust, dirt, or other contamination.

The Regulations relating to Food Control have been amended making it "unlawful to store or keep in the same compartment or place where perishable foods are stored or kept, any material, goods, commodities, or chattels of any kind, which, in the opinion of the Health Officer, are liable to contaminate such perishable foods or render them unfit for human consumption."

Also, "it shall be unlawful to transport in any truck, car, or conveyance of any kind, together with perishable foods, including milk or milk products, any material, goods, commodities, or chattels of any kind, which, in the opinion of the Health Officer, are liable to contaminate such perishable

foods or render them unfit for human consumption, unless and except, such perishable foods are conveyed or kept in a separate and completely closed compartment."

Under the head of Milk Dealers' Licenses, the Health Officer may at any time suspend or revoke any license issued by him.

A new sub-section has been added to one of the sections dealing with bakeries, as follows: "(2) No person, individual, firm, association or corporation engaged in the manufacture of bread or bread-stuffs shall offer for sale any of his or their products until the premises in which they are manufactured have been inspected and a permit obtained from the Minister or the Medical Officer of Health setting forth that the premises comply with the requirements of the Act or Regulations thereunder, or with any by-law or regulations made and issued by the Municipal Council of the Municipality in which the premises are situated."

The Regulations respecting Disease Control are amended by the addition to a sub-section which reads, "(2) It shall be the duty of every physician throughout the Province attending a case of communicable disease to forthwith report any death resulting therefrom to the Minister on the form prescribed and furnished by him."

The sections of the Regulations relating to "Industrial and Construction Camps" have been repealed and new sections substituted therefor. As these are somewhat lengthy and we are not likely to have to enforce them, they are not inserted.

An amendment to the Regulations dealing with Wiping Rags now reads, "(1) No person, firm, company or corporation shall wash, cleanse or launder soiled rags or soiled cloth material for wiping rags by the same machinery or appliances, in, or by which, clothing and articles of personal wear, or for household use, are laundered, nor in the same building, except by permission of the Medical Health Officer, or the Minister, and only after compliance with the requirements as set forth in sub-section (2) hereof." "(2) That portion of the laundry to be used for the washing, cleansing and sterilizing of wiping rag material shall be entirely separated from other portions of the building where other laundry work is conducted. There shall be provided adequate light, means for ventilation, adequate plumbing, drainage and water facilities, impervious walls, floor and ceiling, and a separate entrance for the acceptance and delivery of goods to be used for wiping rag purposes, and such other requirements as the Medical Health Officer, or the Minister, may deem expedient under the circumstances."

The section dealing with Private Boarding Homes and Institutions for Aged and Infirm has been repealed and the following substituted therefor: "14. Aged or infirm persons shall not be placed above the second floor or in attic rooms. The second floor shall not be occupied by patients except where suitable provision is made for fire exits."

A new sub-section has been added to one of the sections respecting Food Control and reads, "(2) All advertising of milk, cream, and other dairy products intended for sale, appearing on labels, containers or vehicles for conveying the same, shall be subject to the approval of the Minister; otherwise permits for sale may be withdrawn."

By the City of Winnipeg—By-law No. 15050 creating a zone or district of "all those lands in the City of Winnipeg bounded by Stella Avenue, Dufferin Avenue, Robinson Street and Salter Street" in which no property shall be used as a junk yard.

By-law 15055 amends section 84 of By-law 10634 by stating, "No person shall have or conduct a second hand shop in a dwelling house, apartment block or other residential premises."

Outside Closets—There are 267 such closets in use, being one more than at December 31st, 1937. There were seven closets removed during the year but eight were added.

Educational Work—Every year the Department is asked to supply speakers on health topics and during the past year several members of the staff fulfilled this duty.

For the improvement and education of our own staff, the following course of lectures was arranged for the winter season 1938-39:

1938

Nov. 26—Opening Address—Dr. A. J. Douglas, Medical Officer of Health, Winnipeg.

Dec. 3—The Public Health Act of Manitoba—Mr. Jules Preudhomme, K.C., City Solicitor, Winnipeg.

Dec. 10—Developments in Control of Infectious Diseases—Mr. W. J. T. Watt, Chief Inspector, Division of Communicable Diseases, Health Department, Winnipeg.

1939

Jan. 7—Tapeworm in Fish—Prof. R. A. Wardle, Manitoba University, Department of Zoology.

Jan. 14—Dairy Control and Pasteurization—Dr. M. S. Lougheed, Bacteriologist, Health Department, Winnipeg.

Jan. 21—Diseases of Animals in Relation to Man—Dr. R. H. Lay, District Veterinary Inspector, Department of Agriculture.

Jan. 28—Food-borne Infections—Prof. Norman James, Department of Bacteriology, University of Manitoba.

Feb. 4—Juvenile Delinquency in Relation to Slums—Judge F. A. E. Hamilton, Juvenile Court, Winnipeg.

Feb. 11—The New Housing Schemes—Mr. A. Officer, Chief Inspector, Division of Sanitation and Housing, City Health Department, Winnipeg.

Feb. 18—Food Analysis—Mr. H. A. Watson, Analyst, Dominion Food and Drug Laboratory.

Feb. 25—Vitamins—Dr. M. J. Omerod, Dept. of Pathology, Manitoba Medical College.

Mosquito Prevention—A mosquito prevention campaign was conducted, as in previous years, in this city and its surroundings by Doctor H. M. Speechly and his associates, who are again entitled to the gratitude of our citizens for the effort put forth.

I regret to announce the retirement of Mr. E. C. Brown, Chief Dairy Inspector for many years, on account of ill health, which took place last July. Mr. Brown rendered a real service to the City in improving the milk supply, in protecting the consumer and educating the producer. I trust that Mr. Brown's retirement may result in the restoration of his health and that he may have many years of usefulness ahead of him.

In concluding this report, which is the last one which I shall have the honour of making to your Committee as the date of my retirement is May 1st, 1939, I desire to express to the members of the Health Committee and the City Council, the Medical and Nursing Professions, the press, the citizens of Winnipeg, the Provincial Board of Health, my colleagues, heads of other departments, and particularly the members of the staff, whose services I cannot praise too highly, my profound appreciation and gratitude for the loyalty and support which has been accorded to me by all of the above during my long term of office. Without this support it would have been impossible to carry out adequately public health measures which were necessary at various times to conserve and protect the health of our citizens.

I feel sure that I can promise your Committee the continued devotion and loyalty of all the members of this department to the cause in which they are engaged.

Respectfully submitted,

A. J. DOUGLAS,
Medical Health Officer.

Report of the Bacteriologist

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honor to submit a report on the work performed in the Bacteriological Laboratory for the year ending December 31st, 1938.

A summary of the samples and specimens is given in the following table:—

1938	Cultures for Diphtheria	Sputa for Tuberculosis Bacilli	Urethral Smears	Widals for Typhoid	Urinalyses	Vaccinations	Miscellaneous	Water	Milk and Cream	Total Examinations per Month
	Pos.	Pos.	Pos.	Pos.						
January	74— 1	1— 0	12— 2	1—0	33	4	8	160	156	449
February	80— 1	15— 5	16— 2	0—0	27	38	4	165	167	512
March	103— 0	24— 8	19— 7	0—0	26	161	5	182	171	691
April	77— 1	15— 3	30— 6	0—0	23	233	135	158	156	827
May	95— 0	4— 2	24— 0	0—0	26	661	11	196	143	1160
June	451— 0	6— 0	29— 0	0—0	12	133	10	207	174	1022
July	1390— 0	16— 0	33— 0	0—0	18	0	3	171	102	1733
August	909— 1	11— 0	14— 2	0—0	21	47	3	160	118	1283
September	97— 0	10— 0	14— 2	0—0	25	218	20	208	112	704
October	203— 7	13— 0	20— 2	1—0	18	392	2	156	108	913
November	198— 3	15— 1	29— 5	0—0	29	163	6	171	109	720
December	411— 7	9— 0	10— 0	0—0	11	17	12	211	104	785
Totals ..	4088—21	139—19	250—28	2—0	269	2067	219	2145	1620	10799
1937 Totals ..	4342—23	158—19	193—39	22—1	259	933	219	2154	1803	10083
1936 Totals ..	4702—19	162—16	382—40	22—0	377	1222	192	2089	1767	10915

Water Samples—During the year 2,145 samples of water were examined. This is nine below past year's record for this laboratory. These were examined for the presence of B. Coli by the standard presumptive test and for the number of organisms per c.c. by agar plates. These included daily samples from the domestic supply and samples once or twice weekly from the water in the river mains, deep wells and private and public swimming pools.

Milk and Cream—The number of samples, 1,620, is the lowest in recent years due to the marked decrease in the number of producer-distributors now being licensed in the City.

Diphtheria Cultures—Cultures examined numbered 4,088 in 1938, the lowest in many years due to the marked decrease in diphtheria.

These cultures were made for private physicians, welfare nurses, health inspectors, Margaret Scott Nursing Mission Nurses and others. Approximately 70% were taken as routine from the throats of children going to summer camps.

Medical Services—This includes a variety of services including the making of examinations and issuing of reports for the Social Welfare Commission, the Family Bureau and other welfare organizations with treatment for minor complaints; and examination of individuals for the Unemployment Relief Department and its various divisions chiefly in regard to the individual's fitness for work.

Medical advice and treatment of minor complaints are also given to those on Old Age Pensions, Army Pensions and Allowances and those while not receiving public assistance are not in a position to employ a private physician—the more serious cases being referred to the clinics at the hospitals.

This division has also given general supervision to hospitalization of cases for the cost of which the City is liable and has assisted in earlier transfer of cases requiring institutional care.

The examination of the school children for freedom from contagious diseases with the issuing of certificates for return to school has been continued as formerly.

In conclusion, I wish to express my appreciation for the manner in which the other members of this division, Miss M. Wilson and Mr. C. Van Engel, have fulfilled their respective duties.

Respectfully submitted,

M. S. LOUGHEED,

Deputy Medical Health Officer
and Bacteriologist.

Report of Chief Inspector, Division of Communicable Diseases

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honour to submit for your consideration, report of work done by this division during the year 1938.

Brief comment is made, where necessary, on the tables and summaries attached to this report.

1. Communicable Diseases, Monthly Cases and Deaths, "Corrected."
2. Communicable Diseases, Wards, Institutional and Non-resident.
3. Communicable Diseases, Cases, by Age and Sex.
4. Communicable Diseases, Deaths, by Age and Sex.
5. Inspectors' and Nurses' Reports; Toxoid Administration.
6. Tuberculosis, Summarized.
7. Tuberculosis, Living and sleeping accommodation.
8. Poliomyelitis, Age, Sex and Wards.
9. Poliomyelitis, Chart, 1936, 1937 and 1938.
10. Poliomyelitis, Spot Map.

The crude total of cases and deaths of all diseases recorded for the year was three thousand, nine hundred and four cases and one hundred and five deaths. Winnipeg cases totalled three thousand, seven hundred and eighteen, and deaths sixty-seven. Of this total, Chickenpox and Mumps accounted for two thousand, six hundred and ninety-four cases. The year was quite favourable in regard to other infections.

With the exception of one outbreak, institutions were comparatively free from major infections. They did suffer, however, from Chickenpox, there being eighty-five cases of this disease reported.

Non-resident total for all diseases was one hundred and eighty-six cases, deaths thirty-eight. These come in from adjoining municipalities and for the most part are admitted into City hospitals for treatment.

In reviewing the totals presented in Inspectors' reports, we find the figures lower, with one exception, viz., Rooms Sprayed. This increase is due to the close following up of the changes in residence of infectious tuberculous patients. One thousand, one hundred and twenty-two other calls are recorded, these embrace all calls outside of the normal routine and

include house to house visitation when tracing outbreaks of disease and visits made re administering Toxoid.

Owing to the annual Toxoid campaign being changed to the month of April, our record of attendance was not up to that of former years.

Inspectors were kept busy on several occasions, during the Fall of the year, when Scarlet Fever threatened to spread through a number of local outbreaks.

Tuberculosis. Visiting Nurses' reports show a total of six thousand and seventy-three visits to homes of patients, of this number one hundred and thirty-nine were made to new patients. Number of homes on the visiting list total five hundred and sixty, included in this figure is one hundred and forty contact families and twenty-two suspects.

Summary attached to this report shows details relating to new cases reported during the year, deaths recorded and cases appearing in hospital or sanatoria at the end of the year. Of the one hundred and seventeen new cases added to the list, seventy-five are classified as open cases while forty-two are classified as clinically positive.

This work is carried on by three full time visiting nurses, it varies very little from year to year. Their duties include close co-operation and contact with the Tuberculosis clinics, the follow-up work, as far as possible, with all known cases, embracing the supervision and examination of contacts.

We believe that considerable improvement has taken place in the recording of cases; this is borne out by the low number of six cases reaching us through death registration. It is not possible to state if the result, as recorded in lowered number of cases and the continued low death rate, is brought about by the continued combined forces at work from year to year, but it may be assumed that such a vigorous policy as has been instituted in this province and city, during the past years, would some day bring results. We believe our visiting nurses share in this accomplishment.

In concluding this report, we would like to record the appreciation of this division to the various hospitals and institutions who have rendered service throughout the year. We would especially mention the Municipal Hospitals, Winnipeg General Hospital, Provincial Central Tuberculosis Clinic, Medical Inspection Department of Public Schools, Margaret Scott Nursing Mission, Social Welfare and relief organizations. Without their direct assistance and co-operation the results reflected in the year's work would not have been possible.

I also desire to place on record my appreciation for the assistance given in the conduct of the work during the year by Inspectors, Nurses and Office staff of this division.

Respectfully submitted,

W. T. WATT,

Chief Inspector,
Division of Communicable Diseases.

COMMUNICABLE DISEASES BY MONTHS—1938—CORRECTED

	Jan.		Feb.		Mar		Apr.		May		June		July		Aug		Sept.		Oct.		Nov.		Dec.		Totals 1938		Non. Res.		Crude Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Cerebrospinal Fever	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	3	3	3	3
Chickenpox	220	....	145	....	176	1	224	....	299	....	465	....	114	....	21	....	29	....	73	....	79	....	16	....	1861	1	4	....	1865	1
Diphtheria	3	....	.....	....	6	....	6	....	7	....	5	....	6	....	3	....	5	1	18	....	14	....	14	....	87	1	23	4	110	5
Diphtheria Carriers	.....	....	.....	....	.....	....	.....	....	2	....	1	....	1	....	1	....	.....	....	1	....	3	....	5	....	14	....	4	....	18	.....
Encephalitis, Infectious	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	1	.....	....	.....	....	1	1	.....	....	.....	....	1	2	.....	....	1	2
Erysipelas	2	....	3	....	7	....	2	....	5	1	1	....	.....	....	5	....	3	....	3	....	4	....	5	....	40	1	6	1	46	2
Influenza	3	3	1	1	2	4	1	....	2	1	.....	....	.....	....	.....	....	1	1	.....	1	1	....	1	1	12	12	1	1	13	13
Measles	4	....	7	....	1	....	2	....	4	....	3	....	1	....	1	....	2	....	1	....	16	....	3	....	45	....	7	....	52	.....
Mumps	59	....	66	....	122	....	122	....	169	....	72	....	13	....	9	....	26	....	38	....	70	....	67	....	833	....	2	....	835	.....
Ophthalmia Neonatorum	.....	....	.....	....	.....	....	.....	....	2	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	2	....	.....	....	2	.....
Poliomyelitis	.....	....	.....	....	1	....	.....	....	1	....	.....	....	2	....	16	1	17	1	12	1	.....	....	.....	....	49	3	18	7	67	10
Puerperal Fever	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Scarlet Fever	43	....	24	....	17	....	13	....	33	....	24	....	22	....	14	....	35	....	60	....	106	....	59	....	450	....	75	....	525	.....
Smallpox	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	1	....	1	.....
Tuberculosis, Pulmonary	7	6	6	2	11	3	9	3	6	....	13	2	7	5	10	9	8	3	17	4	16	4	7	3	117	44	19	18	136	62
Trachoma	.....	....	.....	....	.....	....	.....	....	1	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	1	....	1	....	2	.....
Typhoid Fever	.....	....	.....	....	.....	....	1	....	1	....	.....	....	1	1	.....	....	3	....	.....	....	.....	....	.....	....	6	1	7	3	13	4
Typhoid Fever, Para	.....	....	1	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	1	....	.....	....	1	.....
Undulant Fever	.....	....	.....	....	.....	....	1	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	1	....	.....	....	1	.....
Whooping Cough	12	1	11	....	7	....	6	....	22	....	47	1	17	....	23	....	5	....	11	....	25	....	12	....	198	2	15	1	213	3
Total	353	10	264	3	350	8	387	3	554	2	631	3	184	7	103	10	134	6	235	7	334	4	189	4	3718	67	186	38	3904	105

COMMUNICABLE DISEASES BY WARDS—1938

	CASES						DEATHS					
	WARDS			Institutions	Total City Cases	Non-Resident Cases	WARDS			Institutions	Corrected City Totals	Non-Resident Deaths
	1	2	3				1	2	3			
Cerebrospinal Fever	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	3
Chickenpox	486	627	663	85	1861	4	.....	1	.....	.....	1	.....
Diphtheria	16	44	26	1	87	23	.....	1	.....	.....	1	4
Diphtheria Carriers	4	6	4	.....	14	4	.....	.....	.....	.....	.....	.....
Encephalitis, Infectious	1	.....	.....	.....	1	.....	1	.....	1	.....	2	.....
Erysipelas	10	16	9	5	40	6	1	.....	.....	.....	1	1
Influenza	2	4	6	.....	12	1	2	5	5	.....	12	1
Measles	4	25	16	.....	45	7	.....	.....	.....	.....	.....	.....
Mumps	185	411	220	17	833	2	.....	.....	.....	.....	.....	.....
Ophthalmia Neonatorum	.....	1	1	.....	2	.....	.....	.....	.....	.....	.....	.....
Poliomyelitis	26	18	5	.....	49	18	2	1	.....	.....	3	7
Puerperal Fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever	125	192	121	12	450	75	.....	.....	.....	.....	.....	.....
Smallpox	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Tuberculosis, Pulmonary	29	48	40	.....	117	19	17	17	10	.....	44	18
Trachoma	.....	.....	1	.....	1	1	.....	.....	.....	.....	.....	.....
Typhoid Fever	1	3	2	.....	6	7	.....	1	.....	.....	1	3
Typhoid Fever, Para	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Undulant Fever	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Whooping Cough	91	37	68	2	198	15	1	1	.....	.....	2	1
Totals	981	1433	1182	122	3718	186	24	27	16	.....	67	38

CASES OF COMMUNICABLE DISEASES, BY AGE AND SEX—1938

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5-9 Years		10-14 Years		15-19 Years		20-24 Years		25-34 Years		35-44 Years		45-64 Years		65 Yrs. and over		All Ages		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T't'l.
Cerebrospinal Fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chickenpox	24	19	27	31	49	29	43	40	49	49	613	581	126	117	13	22	1	12	2	5	5	.....	4	.....	.....	.....	956	905	1861
Diphtheria	2	1	4	2	4	1	4	1	.....	3	11	11	3	3	6	9	1	6	2	6	.....	3	.....	4	.....	.....	37	50	87
Diphtheria Carriers	.....	.....	.....	1	.....	.....	1	.....	1	.....	4	1	.....	1	2	1	.....	.....	1	.....	.....	1	.....	.....	.....	.....	9	5	14
Encephalitis, Infectious	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	1
Erysipelas	1	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	1	2	1	.....	4	4	2	7	5	8	2	25	15	40
Influenza	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	3	.....	3	3	8	4	12
Measles	2	3	.....	2	5	1	3	.....	2	1	8	7	1	.....	2	2	.....	3	2	1	.....	.....	.....	.....	.....	.....	25	20	45
Mumps	1	1	5	7	4	4	7	9	15	15	281	261	83	77	14	13	4	10	1	15	1	3	1	1	.....	.....	417	416	833
Ophthalmia Neonatorum	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2
Poliomyelitis	.....	.....	.....	.....	.....	.....	1	.....	.....	2	17	11	8	7	1	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	28	21	49
Puerperal Fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever	.....	1	7	3	12	15	20	15	17	15	100	116	31	46	10	10	1	15	6	6	2	2	.....	.....	.....	.....	206	244	450
Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuberculosis, Pulmonary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	2	3	10	6	19	12	13	15	4	20	4	6	.....	63	54	117
Trachoma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Typhoid Fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	1	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	3	3	6
Typhoid Fever Para	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Undulant Fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	1
Whooping Cough	11	7	3	8	14	9	7	6	8	9	49	55	4	7	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	96	102	198
Totals	42	33	47	54	88	59	86	72	92	94	1086	1045	258	260	52	70	16	67	27	51	29	16	36	16	17	5	1876	1842	3718

DEATHS FROM COMMUNICABLE DISEASES, BY AGE AND SEX, 1938, CORRECTED

	Under 1 Year		1 Year		2 Years		3 Years		4 Years		5-9 Years		10-14 Years		15-19 Years		20-24 Years		25-34 Years		35-44 Years		45-64 Years		65 Yrs. and over		All Ages		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T't'l
Cerebrospinal Fever																													
Chickenpox	1																										1		1
Diphtheria										1																		1	1
Diphtheria Carriers																													
Encephalitis, Infectious																			1			1						2	2
Erysipelas																									1		1		1
Influenza								1													2		3		3	3	8	4	12
Measles																													
Mumps																													
Ophthalmia Neonatorum																													
Poliomyelitis											1	1							1								1	2	3
Puerperal Fever																													
Scarlet Fever																													
Smallpox																													
Tuberculosis, Pulmonary											1					1	1	2	9	4	5	3	12	3	3		31	13	44
Trachoma																													
Typhoid Fever																								1				1	1
Typhoid Fever, Para																													
Undulant Fever																													
Whooping Cough	1	1																									1	1	2
Totals	2	1						1		1	2	1				1	1	2	9	6	7	3	15	5	7	3	43	24	67

INSPECTORS' REPORT, 1938

	Totals 1938	Totals 1937
Number of Visits	4,982	5,877
Houses Quarantined	3,236	3,706
Quarantines Raised	237	415
Quarantines Inspected	387	436
Other Calls	1,122	1,320
New Cases Investigated	3,329	4,112
Bedding, etc., Disinfected	774	1,094
Rooms Sprayed	208	149
Houses Sprayed	.....	3
School Certificates Issued	1,288	1,295

TUBERCULOSIS—VISITING NURSES' REPORT, 1938

	Totals 1938	Totals 1937
Number of Visits	6,073	6,100
To Old Cases	5,774	5,696
To New Cases	139	174
To Suspects	3	28
On Behalf of Patients	137	174
Other Calls	20	28
Patients sent to King Edward Memorial Hospital	8	7
Patients sent to Ninette Sanatorium	3	.....
Patients sent to St. Boniface Sanatorium	2	8
Patients sent to Central Clinic	4	3
New Cases added to Districts	117	136

TOXOID ADMINISTRATION PRE-SCHOOL CHILDREN, 1937-38

	1938	1937
Number receiving 1st treatment	1,213	1,497
Number receiving 2nd treatment	1,106	1,357
Number receiving 3rd treatment	996	1,162
Total number of treatments given	3,315	4,016

TOTAL TOXOID TREATMENTS—BY WARDS

	Ward 1	Ward 2	Ward 3	Total
1937	419	1,533	2,064	4,016
1938	388	1,247	1,680	3,315

TOXOID DISTRIBUTED FOR THE YEARS 1937-38

Toxoid	Single Ampoules 1938	Single Ampoules 1937		Complete Series 1938	Complete Series 1937	Schick Test 1938	Schick Test 1937
1st Dose	22	4	(1 person pkts.)	659	590	126	131
2nd Dose	8	7	(6 person pkts.)	27	22		
3rd Dose	24	10	(12 person pkts.)	112	154		

TUBERCULOSIS — 1938

Sources of ascertainment of cases recorded for 1938 and comparative figures for the year 1937

	1938	1937
King Edward Memorial Hospital	33	37
Ninette Sanatorium	1	1
St. Boniface Sanatorium	19	33
Central Clinic	36	55
Central Registry	19	....
Doctors and others	3	5
Death Registrations	6	5
Non-resident	19	15
Total	136	151

Summary showing length of time symptoms noted prior to department receiving report.

CASES

Under one month	47
One month	24
Two months	15
Three months	8
Four months	2
Five months	3
6 - 12 months	7
One year and over	11
Total	117

DEATHS (Corrected)—Length of time known to department.

By Death Registration	7
Under one month	2
One month	1
Two months	3
Three months	....
Four months	1
Five months	1
Six months	....
Over six months	29
Total	44

Age Incidence in Ten Year Periods
(For other classification see table Communicable Diseases)

CASES

Age Incidence	M.	F.	Total
0-10 years	1	2	3
10-20 years	4	11	15
20-30 years	11	26	37
30-40 years	19	9	28
40-50 years	9	3	12
50-60 years	10	2	12
60-70 years	6	....	6
70 and over	4	....	4
Total	64	53	117

DEATHS

Age Incidence	M.	F.	Total
0-10 years	1	....	1
10-20 years	....	1	1
20-30 years	6	4	10
30-40 years	7	5	12
40-50 years	7	2	9
50-60 years	6	1	7
60-70 years	2	....	2
70 and over	2	....	2
Total	31	13	44

Distribution of Cases appearing on our records as "in Hospital and Sanatorium," at end of year 1938

	M.	F.	Total
King Edward Memorial Hospital	69	39	108
St. Boniface Sanatorium	31	25	56
Ninette Sanatorium	16	19	35
Central Clinic	5	3	8
St. Rochs Hospital	1	....	1
Total	122	86	208

TUBERCULOSIS—1938—NEW CASES

LIVING ACCOMMODATION

	PATIENTS			Total Number of Persons in Household		
	Males	Females	Total	Over 10 Years	Under 10 Years	Total
1 Room	7	2	9	9	.....	9
2 Rooms	2	1	3	2	1	3
3 Rooms	11	10	21	27	6	33
4 Rooms and over	44	39	83	222	34	256
Institutional and Unclassified	....	1	1	1	.....	1
Totals	64	53	117	261	41	302

SLEEPING ACCOMMODATION

	PATIENTS				CONTACTS		
	With Room to Self	With Bed But Not Room to Self	With Neither Bed Nor Room to Self	Total	Sleeping in Same Bed As Patient	Sleeping in Separate Bed but in Same Room as Patient	Total
1 Room	6	....	3	9	3	....	3
2 Rooms	2	1	....	3	....	1	1
3 Rooms	6	3	11	20	11	4	15
4 Rooms and over	53	3	28	84	28	14	42
Institutional and Unclassified	....	1	....	1	....	....	....
Totals	67	8	42	117	42	19	61

ANTERIOR POLIOMYELITIS, 1938

AGE INCIDENCE

Ages	Cases	Per Cent.	Ages	Suspects	Per Cent.
4 yrs. and under	3	6.0	4 yrs. and under	9	20.0
5 to 9 years.....	28	57.0	5 to 9 years.....	22	49.0
10 to 14 years....	15	31.0	10 to 14 years....	8	18.0
15 to 19 years....	1	2.0	15 to 19 years....	2	4.0
20 to 24 years....	....	.....	20 to 24 years....	1	2.0
25 yrs. and over	2	4.0	25 yrs. and over	3	7.0
Totals	49		Totals	45	

SEX INCIDENCE

CASES

	Mar.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Male ...	....	....	....	1	10	12	5	....	....	28
Female	1	1	....	1	6	5	7	....	....	21
Totals	1	1	....	2	16	17	12	....	....	49

SUSPECTS

	Mar.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Male ...	1	2	2	1	6	5	2	1	....	20
Female	....	....	....	2	3	11	6	1	2	25
Totals	1	2	2	3	9	16	8	2	2	45

INCIDENCE BY WARDS

CASES

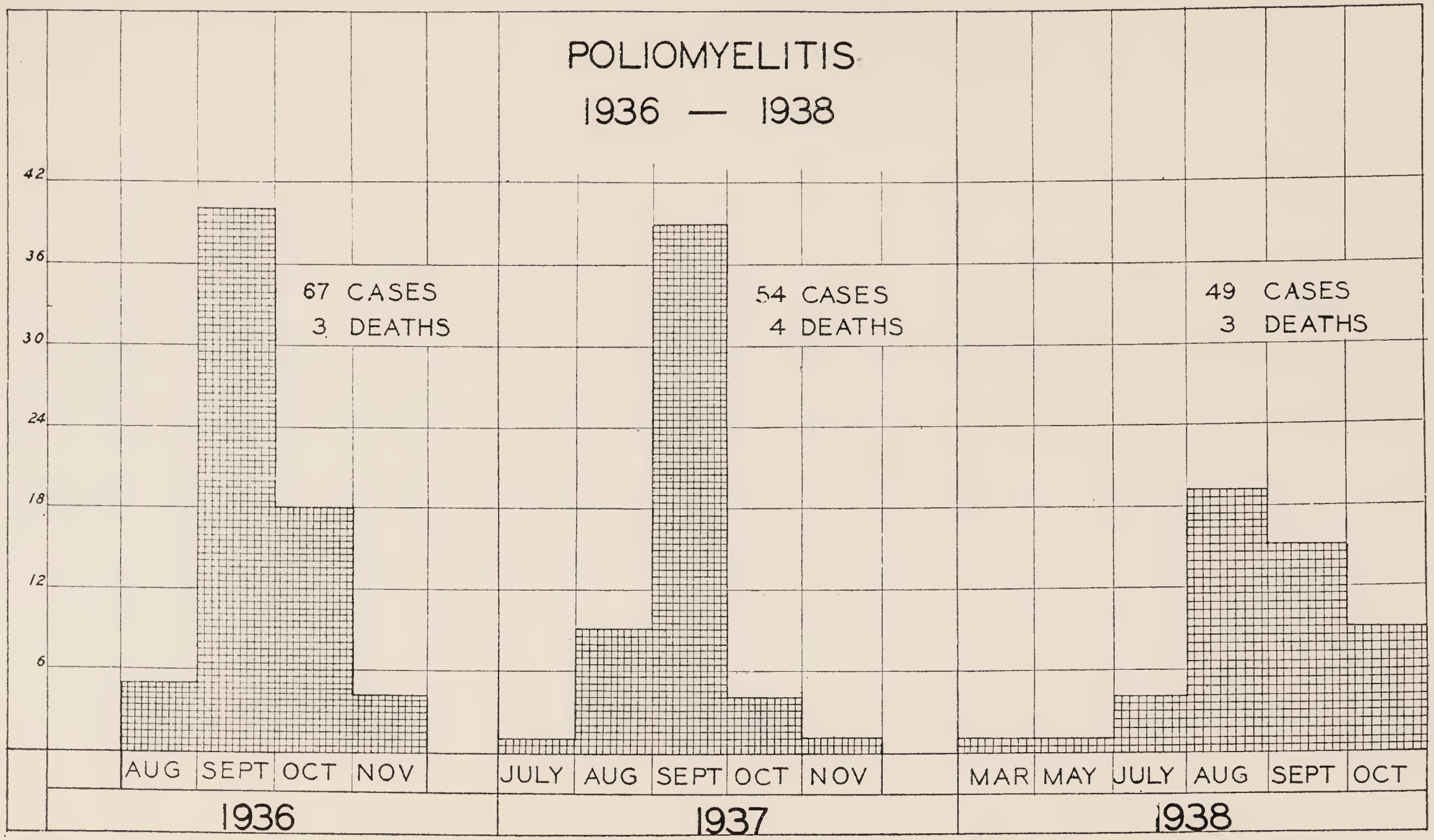
	Mar.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Ward 1	1	1	....	2	12	6	4	....	....	26
Ward 2	....	....	....	....	3	7	8	....	....	18
Ward 3	....	....	....	....	1	4	....	....	....	5
Totals	1	1	....	2	16	17	12	....	....	49

SUSPECTS

	Mar.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Ward 1	1	....	1	1	1	7	4	....	....	15
Ward 2	....	2	1	1	6	3	4	....	2	19
Ward 3	....	....	....	1	2	6	....	2	....	11
Totals	1	2	2	3	9	16	8	2	2	45

CANADIAN PACIFIC RAILWAY SHOPS
EXHIBITION GROUNDS
CANADIAN PACIFIC RAILWAY TERMINAL GROUNDS
ELMWOOD CEMETERY
JASPER
CITY OF WINNIPEG
MIDLAND RAILWAY OF MANITOBA
CANADIAN NORTHERN RAILWAY SHOPS
CANADIAN NORTHERN RAILWAY
RIVER PARK
POLIOMYELITIS – 1938
46 CASES ● 3 DEATHS ▲

POLIOMYELITIS
1936 — 1938



Report of Chief Inspector, Division of Sanitation and Housing

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honor to submit for your consideration, the following report on the work accomplished by this Division of the Health Department, during the year 1938, as set forth in my own report; also those of the Housing Inspector and the Smoke Inspector.

Abatement of Nuisances—The total number of inspections and re-inspections made during the year was 31,925.

The total number of complaints received during the year was 1,744. Of these, 387 were unfounded, or the conditions complained of removed prior to inspection.

Notices served for abatement of nuisances were: written, informal, 637; written, statutory, 800; verbal notices and warnings, 12,115.

The number of inspections of various premises, also the number of nuisances discovered and abated, follows:

Complaints received at office	1,404
Complaints made to Inspectors	340
Total	1,744
Of above:	
Complaints re non-removal of garbage, etc.	166
Complaints re nuisances	1,578
Total	1,744
Complaints well founded	1,357
Complaints unfounded or conditions rectified prior to inspection	387
Total	1,744
Written notices (informal)	637
Written notices (statutory)	800
Verbal notices or warnings	12,115
	13,552

Inspections Made

Dwelling Houses	1,424
Tenement and apartment blocks	1,328
Hotels and lodging houses	291
Schools and public buildings	66
Workshops and factories	414
Offices	29
Stores	124
Stables, Feed and Sale	177
Stables (private)	956
Laundries (hand)	662
Laundries (steam)	5
Dog kennels	246
Theatres and places of amusement	183
Public bath houses	240
Public bath houses, water samples	262
Comfort stations, Public	378
Garages and filling stations	375
Markets, etc.	492
Bedding and upholstering factories	63
Lack of heat in dwellings	43
Wiping rags	49
Refrigerators (chemical)	1
Basements requiring permit of Health Officer	11
Common drinking cups and towels	42
Barber shops	173
Second-hand stores and junk yards	596
Poolrooms	376
Yards, sheds, areas, etc.	6,342
Vacant lots (nuisances)	804
Streets and lanes (nuisances)	6,479
Contractors' closets	288
Pit closets	484
Hydrocyanic acid gas fumigations	202
Undertakers' premises	11
Tanneries and hide storage warehouses	52
Total number of inspections	23,668
Re-inspections	8,257
Total number of inspections and re-inspections	31,925

Defects and Nuisances Discovered and Abated

Drains, choked or defective	93
Sinks and washbasins, choked or defective	120
Waterclosets and fittings, choked or defective	175
Baths and fittings, choked or defective	12
Urinals and fittings, choked or defective	30
Soil-pipes, clean-outs, etc., choked or defective	101
Catch-basins and traps, choked or defective	84
Watercloset compartments, defective light and ventilation	27
Plumbing and water pipes, frozen	46
Vent stacks, frozen	4
Sewer connections, frozen	3
Water services, defective or shut off	81
Plumbing fixtures, insufficient	15
New plumbing, notices to install	1
Total plumbing defects	792

Dirty yards, courts, sheds, etc.	6,041
Poultry kept in or too close to dwelling	60
Pigeons kept in dwelling or not confined to coop	24
Animals kept in dwelling	13
Poultry kept under insanitary conditions	190
Cows or other cattle kept under insanitary conditions	86
Cows or other cattle kept too close to dwelling	1
Hogs, unlawfully keeping	1
Horses, insanitary stables	136
Garbage receptacles	1,800
Refuse receptacles	70
Manure bins, defective	200
Ash receptacles	58
Paper receptacles	1
Cellars and basements, defective	141
Dwellings, dilapidated and insanitary	151
Tenements, dilapidated and insanitary	99
Offices and workshops, dilapidated and insanitary	44
Dilapidated and insanitary, other buildings	23
Fly screens, lack of or defective	50
Overcrowding (day inspections)	104
Rat-infested buildings	27
Cockroach-infested buildings	38
Bedbug-infested buildings	282
Chimneys or smoke pipes, defective	62
Roofs, defective	110
Eavestroughs and rain leaders, defective	91
Gas-fittings and piping, defective	3
Furnaces and heating apparatus, defe tive	44
Refrigerators, defective	1
Lighting, defective	9
Ventilation, defective	25
Pit closets, concrete or brick, defective	54
Contractors' closets, defective	52
Stagnant water on vacant lots	15
Other nuisances on vacant lots	568
Nuisances on lanes or streets	3,945
Unnecessary noises	31
Total defects discovered and abated (including plumbing defects)	15,442

Smoke Nuisances

Chimneys and smoke stacks (observations)	235
Furnaces, boilers, fuels, etc., inspections of	114
	349
Notices, statutory	5
Notices, verbal	126
	131

Miscellaneous

Premises placarded insanitary	25
Water samples taken	1,459
Infractions of Zoning By-law	19
Re: cross connections, domestic water supplies	.....
Cellars illegally occupied	4
Private hospitals and nursing homes	16
Re: use of hydrocyanic acid gas (special inspections)	208

Frozen Water Pipes and Plumbing—Only 53 cases of frozen water services and plumbing pipes and fixtures were dealt with during the year. This is 29 less than last year and 138 less than the previous year. The reduction is very largely due to the demolition of many old buildings that were a constant source of trouble, being inadequately protected against frost; also, changes effected to obviate such trouble, following our instructions, are bearing fruit.

Other Plumbing Defects—There is a decrease in general plumbing defects, the total this year being 739 as against 890 last year. The remarks above, apply here also. As usual, defects in waterclosets and fittings head the list.

Defective Roofs, Eavestroughs and Rain Water Leaders—A total of 110 eavestroughs and 91 rain leaders were dealt with. These defects are frequently the cause of dampness in and around dwellings and are most commonly found in old buildings that have been allowed to run down.

Garbage, Manure and other Receptacles—For a number of years we have conducted a campaign for the replacement of garbage cans. This year, between May 1st and October 31st, a total of 1,445 garbage cans were procured.

Only 166 complaints were received with regard to the non-removal of garbage. This reflects great credit on the work done by the Scavenging Division. A vast amount of work is also done by our District Inspectors in directing citizens on the care and storage of garbage and containers in order that same may receive regular service.

Notices served during the year were as follows:

To provide garbage cans and covers	1,800
To provide receptacles for incombustible refuse	70
To provide or repair manure bins	200
To provide receptacles for ashes	58
	2,128

Scavenging—As already indicated, the efficient service rendered by the Scavenging Division, in co-operation with our District Inspectors, has materially reduced the number of complaints regarding non-removal of garbage and other refuse. When complaint is received and inspection made, we find in almost every case that non-removal of refuse is due to improper care or mixing of various classes of refuse.

Outside Closets—There are 267 outside closets in use at the end of the year. Seven closets were removed during the year but eight were added.

Contractors' Closets—Only 141 permits were issued, 288 inspections were made and 52 notices served requiring repairs, cleaning, etc.

Feed and Sale Stables—Inspections made, 177, and permits issued, 12. A number of these premises are now quite old and will soon require reconstruction if they are to continue in use. One of these was ordered closed during the year.

Private Stables—A total of 956 inspections were made during the year and one stable was closed as insanitary. During the summer, a survey was made of all stables in the City, their sanitary condition noted, and a census taken of the animals housed therein. Previous surveys were made in 1912, 1916, 1920 and 1932..

The number of animals found at each census was as follows:

Year	Horses	Cows
1912	7,726	970
1916	4,758	665
1920	3,804	621
1932	1,250	460
1938	879	219

It will be seen that at each census since 1912, there has been a considerable reduction in the number of animals kept, especially horses. Horses and cows kept in Feed and Sale Stables are not included as the numbers fluctuate quite considerably. With regard to the number of cows, it should be pointed out that these include a few herds in dairy premises, situated on the outskirts of the City; indeed this accounts for the majority of the cows. There are fewer cows owned by private individuals than formerly. It was the custom, until recent years, for persons to buy a cow in Spring, keep it on the prairie all Summer, and in Winter dispose of it or put it in a woodshed. The enforcement of the law regarding proper stables, and requiring a permit to keep a cow, has had the effect of materially reducing the number of privately owned animals.

An abstract of particulars, from the survey of stables, in each Ward of the City, is here given:

Construction:	Ward 1	Ward 2	Ward 3	Total
Frame	30	48	150	228
Brick	2	10	5	17
Concrete	....	1	....	1
	32	59	155	246
Sewer connections:				
With	11	46	108	165
Without	21	13	47	81
	32	59	155	246
Floors:				
Concrete	26	45	123	194
Wood	6	14	32	52
	32	59	155	246
Natural light:				
Good	18	16	54	88
Fair	14	43	101	158
	32	59	155	246
Roof ventilators:				
With	26	51	112	189
Without	6	8	43	57
	32	59	155	246
Eavestroughs and rain-water leaders:				
With	5	32	84	121
Without	27	27	71	125
	32	59	155	246

Keeping of Animals—Action was taken in the following cases regarding horses, cows and other animals improperly kept:

Cows and other animals kept in insanitary sheds, etc.	86
Cows and other animals kept too close to dwellings	1
Horses kept in insanitary sheds, etc.	136
Animals unlawfully kept in dwellings	13
	236

Poultry—There are only four premises in which chickens are reared commercially, and all are located on the outskirts of the City. Most of the complaints received relate to premises where poultry are kept by dealers—persons who purchase poultry in large numbers and house same on their premises until a market has been found. As the numbers of poultry fluctuate, it is very difficult to regulate same. The keeping of poultry in closely built up residential areas is very undesirable. It would appear, therefore, that the By-law should be amended so as to permit of more stringent regulations of such premises. A few residents, here and there, keep a small number of chickens for their own use. It might be desirable to place a limit on the number kept. We dealt with the following during the year: insanitary conditions, 190; poultry kept in or too close to dwellings, 60; pigeons improperly kept, 24.

Dog Kennels—A total of 246 inspections were made and 25 permits issued. The care of the animals demands that these premises be kept in a cleanly condition. We seldom find more dogs than that permitted in relation to the size of the premises. The few complaints received usually refer to noise from barking.

Nuisances in Yards, Sheds, Vacant Lots, etc.—A great amount of time is spent in regulating conditions such as the depositing of refuse, garbage, manure, etc Each Spring, accumulations of such material have to be removed and as those responsible cannot be found, the services of the Scavenging Division are called upon. The following figures serve to illustrate the number of instances in which action was taken:

Dirty yards, courts, sheds, etc.	6,041
Nuisances on streets and lanes	3,945
Nuisances on vacant lots	583
	10,569

Compulsory Sewer Notices—No Notices have been served under this head during the past five years.

Overcrowding—A total of 104 inspections were made but this number includes only those instances where special inspections were required. During ordinary inspection of living quarters attention is always directed to the accommodation afforded inmates and where necessary, instructions given.

Housing—The Twenty-first Annual Survey of Vacant Dwellings and Vacant Suites was made, as usual, in December. The outstanding features are here set forth:—

Dwelling Houses

The total number of vacant houses is 330. Last year the total number of vacant dwellings was 355. There are, therefore, 25 less vacant houses than a year ago.

We find there are 36,117 dwellings, including dwellings in connection with stores. The vacancies, therefore, represent less than 1.0% of the whole.

Suites

The total number of vacant suites in apartment blocks is 491 as against 442 last year. There are, therefore, 49 more vacant suites than a year ago.

There are 662 apartment blocks, containing a total of 10,764 suites. The vacancies, therefore, represent only 4.56% of the whole.

Of the vacant suites, 282 were in residential blocks, and 209 in mixed, business and residential blocks. The percentage of vacancies was 3.47% in the former and 7.9% approximately, in the latter.

Total Vacancies

Houses	330
Suites	491
	821

The total vacancies (houses and suites) was 797 last year, as against 821 this year.

New Houses and Demolitions

There were only 142 dwellings and 11 stores and dwellings added to our list during the year, a total of 153 houses. But due to 73 demolitions, there are only 80 more dwellings than a year ago.

During the year, we closed as insanitary, under the Public Health Act, 11 dwellings.

New Blocks and Demolitions

Three new apartment blocks were constructed this year which added 63 suites and 8 buildings were suitably altered into apartment buildings; also additional suites were constructed in present apartment buildings.

As a result of the above changes, we have an increase of 108 suites.

One apartment block containing 23 suites was closed for alterations.

Total Housing Accommodation

The total housing accommodation as at December 31st, was as under:

Dwelling houses	35,062
Dwellings in connection with stores	1,055
Suites in apartment blocks	10,764
	46,881

General Remarks

As in previous years, this survey included all classes of premises occupied as dwellings. The procedure is to make a record during the year of all such premises by streets between blocks. By this means we obtain the number of dwelling houses, dwellings in connection with stores, and suites in apartment blocks. New premises since the previous survey are added and premises demolished are removed from the list. This record is made and checked throughout the year and during December a survey is made to ascertain the number and class of premises found vacant. Needless to say, this involves a great amount of field work that has to be performed in addition to other special, as well as routine, duties.

Taking the gross total of 330 vacant dwellings, the records show that only 102 are of five rooms or less—the accommodation most in demand. But as 10 of these are dilapidated and 33 require extensive repairs, only 69 are available. Several reasons may be given why these latter are vacant: held for sale; rent too high; distant from centre of city; hard to heat in winter; etc.

After deducting the 102 dwellings referred to above, we have 228 vacant dwellings of 6 rooms and larger, but when we come to a consideration of condition and repair, we find that 40 are unfit for occupation. The others are vacant for the reason that they are too large, or for one or more of the reasons already stated.

Surely our present housing shortage cannot continue much longer. The risk to health of our sub-standard housing, not to mention that of the fire hazard in our non-de-script tenements, may be brought home to us with painful remorse. Already, we have much evidence of the toll in moral and mental standards, also the cost of crime, in our blighted districts. Children are denied the elementary, innocent amusements of youth, and are indeed, often exposed to health and moral hazards. There is also the danger of fire from leaky gas pipes, and defective cooking apparatus and heaters in individual rooms. The health and moral tone of whole families has been debased by close association with those of unclean and loose habits.

It is to be hoped that suitable action will soon be taken to properly house those unfortunate families who are compelled to exist under such deplorable conditions.

We are pleased to note that the subject of housing is receiving more and more publicity. The Special Committee on Housing of the City Council has spent much time and given a great deal of thought to the subject; the Greater Winnipeg Housing and Planning Association, formed during the year, has also been busy and collected some valuable data; other associations, churches, clubs and especially the press, have also given the matter careful consideration and interested themselves in trying to evolve a solution of this difficult problem. At the time of writing, a low-cost scheme is before the City Council.

In 1934, a special survey was made of housing conditions in several sections of the City. During April this year a re-check was made of small portions of two of the same districts, the following conditions being found:

Area No. 1

No. of Houses	No. of Rooms	Families in Occupation	Total Families
10	6 each	3 to 4	35
13	8 each	3 to 6	52
8	9 each	4 to 6	38
14	10 each	4 to 7	69
15	11 each	5 to 7	88
60	541 total	3 to 7	282

It will be seen from the above, that there were 282 families in 60 houses of 3 to 7 rooms, an average of less than 2 rooms per family.

Area No. 2

No. of Houses	No. of Rooms	Families in Occupation	Total Families
9	6 each	3 to 4	30
19	7 each	3 to 4	63
15	8 each	3 to 4	51
17	9 each	4 to 6	65
4	10 each	4 to 5	17
10	11 each	4 to 7	50
74	610 total	3 to 7	276

It will be seen from the above, that there were 276 families in 74 houses of 3 to 7 rooms, an average of just over 2 rooms per family.

Combining the above, we find that there were 558 families living in 134 dwellings of 3 to 7 rooms; the accommodation being an average of 2 rooms per family.

Zoning—Fifteen infractions of the Zoning By-law were dealt with during the year. Five of these related to premises occupied as multiple dwellings and eight to business premises established in R. I. districts.

Defective Furnaces and other Heating Apparatus—Defects in furnaces, pipes and flues are frequently found during routine inspection and in this, as in other matters, attention is directed to those responsible. In 44 instances, orders were issued to have changes made or repairs carried out. Where fire hazards are discovered, the information is passed on to the responsible authority.

Gas Stoves and Fittings—Only three serious defects were found and in each case new apparatus was installed. Complaint of objectionable odors and sickness brought to our attention a gas heater fitted up in the cellar of a dwelling by a handyman, the vent having been improperly connected to the chimney and the work generally of poor character.

Chemical and Mechanical Refrigerators—Our annual survey shows that there are 1,418 unit systems in 123 apartment blocks, and 4,629 units in connection with multiple systems in 205 apartment buildings. As usual, copies of the detailed information were forwarded to the City Hydro, the City Electrician and the Provincial Bureau of Labor. Only one defective refrigerator came to our notice.

Cross Connections in Water Supplies—No cross connections were discovered this year.

Factories, Workshops and Office Buildings—A total of 443 inspections were made. The following are a few of the matters dealt with: nuisance from the fabrication of bees wax base; fumes from the manufacture of insulated wires; burnt waste from chimney getting into atmosphere and deposited in and upon adjoining buildings; defective plumbing; lack of separate plumbing fixtures for the sexes.

Rats—The number of rat-infested premises brought to our attention was 27, and in each case the lack of rat-proofing of outside walls was the cause. Notices served requiring extermination of the rodents and protection against invasion, were complied with. The bounty of five cents per rat tail was continued and the amount paid during the year was $593.50.

Public Baths and Comfort Stations—Inspections of these premises totalled 618. The swimming pool at Sherbrook Street, Sargent Avenue, Pritchard Avenue, All Peoples Mission, Stella Avenue Mission, The Winter Club, Y.M.C.A. and Y.W.C.A. were regularly inspected, also other small privately operated premises. Specifications of necessary repairs and renovations were issued in a few cases. Two hundred and sixty-two samples of pool water were taken for examination.

Undertakers' Establishments—Eleven inspections were made and eight permits issued.

Common Drinking Cups and Roller Towels—We do not have much trouble in this connection now but had to take action during the year in 42 instances.

Billiard and Pool Rooms—These premises require constant supervision and each Spring considerable repairs and renovations are required in a number. Inspections made 376 and permits issued 61.

Second Hand Stores and Junk Yards—A total of 596 inspections were made and 174 permits were issued. Almost all the second-hand stores are located in old buildings and it is difficult to maintain order and cleanliness. Some regulation is apparently necessary to prevent the sale of bedding and furniture infested with vermin.

Wiping Rags—The Regulations passed under the Public Health Act are rigidly enforced and for this purpose 49 inspections were made, and where necessary, instructions given.

Bedding and Upholstering Factories—Sixty-three inspections were made. These premises are usually found in sanitary condition.

Barber Shops—A total of 173 inspections were made. We have no By-law or Regulations governing these premises. Defects found usually relate to unsuitable premises, lack of general cleanliness and improper equipment.

Vermin—A total of 282 premises were found infested with bed-bugs and 38 with cockroaches. Extermination is usually undertaken at the owner's expense although in many cases it would appear that the occupier is to blame.

Theatres and Places of Amusement—Inspections made, 183. Defects found are usually unimportant.

Schools and Public Buildings—There were 66 inspections made. The public schools are not inspected by us except upon complaint.

Laundries—A total of 662 inspections were made and 79 permits issued. One hand laundry was ordered closed as insanitary and a number of others are becoming so old and dilapidated as to require similar action in the near future.

Hotels—We made 115 inspections and issued 57 permits. A considerable amount of repairs and renovations were carried out this year in several of these premises.

Lodging Houses—There were 176 inspections made and 25 permits issued for licensed premises. A large number of other premises are occupied as lodgings that do not come under the provisions of the Lodging House By-law.

Markets—Inspections made of market areas totalled 492. Most of our work consists in supervision of methods for cleaning up, storage and removal of waste material. Several of these premises are inspected daily and oftener in Summer months.

Noise—We received 23 complaints and made 31 inspections. The complaints related to noise caused by radios, machinery, dogs, etc. In most cases, the nuisance was abated at once, on request.

Hydrocyanic Acid—A total number of 202 inspections were made in connection with premises fumigated for bed-bug infestation. This work is carried out only during warm, or reasonably warm weather, by licensed fumigators. The operations were all carried out under our supervision and in conformity with the Regulations.

Cellar Occupation—A few cases came to our attention of cellar rooms unlawfully occupied for living and sleeping purposes. In each case they were vacated on instructions.

Smoke—A separate report is provided by the Supervising Inspector in charge of this work. Smoke nuisances are very considerably reduced from former years.

Miscellaneous—Some of the matters dealt with were: stable occupied as a dwelling; old shack on river bank erected and occupied as a dwelling by vagrants—ordered demolished; cellars flooded during heavy rainfall; manure dumping on vacant land; cleaning out and repairing of pit closets; etc.

Work Done for Other Departments—Sanitary surveys were made of premises proposed to be occupied as private institutions at the request of the Provincial Department of Health.

A number of inspections were made of premises occupied by unemployed transient men.

Inspections were made and reports provided when requested by various departments of the City service.

Special inspections were made of various kinds of buildings in which changes were proposed in the manner of occupation, light, ventilation, plumbing, etc.

Re-surveys were made of districts relative to housing conditions.

A special survey was undertaken to ascertain the number of horses, cows, dogs, goats, poultry, rabbits, etc., in the City.

Insanitary Buildings—The table given below shows the number and class of premises for which notices were served on owners and occupants under Division 21, Sections 237 and 238 of the Public Health Act of the Province, under which sections the Health Officer has power to require, that premises be put into sanitary condition or else closed up:—

Dwellings, general insanitary condition	54
Cellars occupied as dwellings	4
Dwellings illegally occupied as tenements	11
Stables	2
Workshops, lack of plumbing	5
Offices, lack of toilet facilities	1
Pool rooms	1
Garage and shed as dwellings	2
Illegal conversion of store to dwelling	2
Hand laundry, insanitary condition of	1
	83

Notices served on owners and agents	73
Notices served on occupants	74

Results:

Notices complied with (premises put into sanitary condition)	50
Premises closed and placarded	9
Cases still pending	24
Remaining closed on December 31st, 1937	64
Premises repaired or demolished during 1938	23
	41
Premises closed during 1938 (8 dwellings, 1 hand laundry)	9
Remaining closed on December 31st, 1938	50

Prosecutions—There were no prosecutions. Final Statutory Notices, where necessary, with the intimation of legal proceedings to follow, are usually sufficient to enforce compliance with our By-laws.

Staff—I am pleased to be able to report a full measure of loyalty by the members of the staff. Extra time, especially during week-ends, is given when this is required.

Respectfully submitted,

ALEX. OFFICER,

Chief Inspector,

Division of Sanitation and Housing.

Report of the Housing Inspector

A. J. Douglas, Esq., M.D., LL.D.,
Medical Health Officer.

Dear Sir:

I respectfully submit herewith a report on housing inspections, and general information relating to housing conditions during the year ending December 31st, 1938.

Dwellings

There were the usual complaints relating to overcrowding of rooms, and various defects which are anticipated each year. Amongst the latter are poorly constructed and damp cellars and general depreciation of the structure. Settlement due to poor foundations is often the cause of many defects which are within the realm of nuisances. There are often contributing and preventable factors which cause settlement. These include the provision and maintenance of eavestroughs and rainwater leaders and proper disposal of rain water. General dilapidation of the structure quickly follows these conditions and the ultimate results are twisted doors, windows and floors, and warped siding which allows the frost to enter and cause dampness of walls due to condensation. Defects to the plumbing system are often caused in the form of broken branch connections to the stack and water closet.

Overcrowding of bedrooms is often alleviated by rearranging the manner of room occupation. In certain instances, however, a change to more commodious quarters is essential.

Complaints regarding vermin were made in many instances. There has been more interest taken by owners of property during the past few years in the eradication of these pests, especially bed-bugs. The Regulations of the Public Health Act make both the owner of the property and tenant responsible. In some instances the owner provides the material and the tenant undertakes the spraying. It is very seldom however that this method is effective. Only fumigation by Hydro-cyanic acid gas applied by a licensed fumigator is effective.

Apartment Blocks

The complaints received referred mostly to minor plumbing defects, odours of a varied nature, lack of heat, vermin, lack of cleanliness and carelessness in the storage of both organic and in-organic household waste.

The plumbing defects were principally in connection with choked sink waste pipes and water closet accessories; odours were, in a few instances, due to dead rats. We have no jurisdiction over the heat provided unless an insanitary condition exists due to lack of same. The presence of bed-bugs in an apartment block creates a serious condition, as it means either spraying an insecticide which very seldom is permanently effective or having the premises vacated and properly fumigated. Lack of cleanliness, etc., is more often found in the older apartment blocks where cheaper rents prevail and the caretaking is a part time one.

In some of the blocks constructed at a time when large suites were the vogue, alterations have been made to reduce the size of suites in order to provide suitable accommodation at a reasonable rental.

Lodging Houses

The regulations pertaining to lodging houses and compulsory licensing of such premises, have been instrumental in raising the standard of housing which previously existed. Before permits for license are issued each year, the premises are thoroughly inspected and notice is issued for the necessary work, which may be repairs or renewing of bedding. Such premises are also re-inspected at intervals and any insanitary condition receives immediate attention. All bedrooms have cards attached to either door or walls on which is designated the number of persons allowed to occupy the room.

Very few complaints were received.

Tenements

It is not necessary to elaborate on reports of previous years which point out the objection to this type of building from the viewpoint of health, safety and environment. It is quite evident that numerous dwellings occupied in this manner will not be provided with the additional plumbing and other facilities unless the owner is compelled to comply with the requirements.

Admittedly, some of the buildings are not worth the expense and others are so arranged that considerable changes would be required. Quite a number however, are suitable for tenement use, but the compulsory provision of the requirements would result in the closing of many of them and the occupants would undoubtedly be found living under worse conditions. Room overcrowding would be in far greater proportion than at present when family overcrowding is more prevalent. Where we find room overcrowding or an excessive number of families in occupation in conjunction with the inaccessibility to plumbing fixtures, closing notices on the premises are served.

Pending an increase in the number of houses available, we endeavour to use discretion in the manner of occupation, taking into consideration the presence of insanitary conditions and other matters pertaining to the welfare of the occupants.

General

Prospects for additional houses are better than for the past few years. They will be occupied however by owners; persons who are in a position to finance the construction. It would appear that none will be built for rental. It is interesting to note that out of the 35,062 dwellings there are only 7,709 which were built less than twenty years ago. The total number of suites and dwellings provided since 1924, inclusive, is 8,538. During that period there was an increase in population of 27,604. The total housing accommodation, which includes dwellings, dwellings in connection with stores and suites in apartment blocks, is 46,881. As the total population is 222,454 the proportional number of persons per house is 4.75 approximately.

We invariably find, that room overcrowding does not exist to the same extent as family overcrowding, which, in other words, means that families reside in the illegally converted dwellings owing to the lack of small houses and for economic reasons.

That a number of small houses or suites at a low rental will be available in the near future is earnestly desired, and the legal conversion of many of the larger dwellings to accommodate two or three families would aid materially in alleviating family overcrowding.

Repairs to hundreds of dwellings are necessary. Attention by owners to the rehabilitation of the structure would not only find employment but prevent early dilapidation.

Your obedient servant,

P. PICKERING,
Housing and Supervising Inspector.

Report of the Smoke Inspector

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

Herewith is respectfully submitted a report on Smoke Nuisances and their abatement during the year 1938.

Smoke Inspections

1938	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Observations:													
Chimneys and Smoke Stacks	23	9	11	12	13	14	21	29	26	18	29	29	234
Inspections of Furnaces, Boilers, Fuels, etc.	11	6	5	8	7	7	9	11	13	7	15	15	114
Totals	34	15	16	20	20	21	30	40	39	25	44	44	348
Notices:													
Statutory	.....	.....	.....	.....	.....	.....	1	2	.....	.....	1	1	5
Verbal	10	5	5	8	8	9	11	17	18	8	12	13	124
Totals	10	5	5	8	8	9	12	19	18	8	13	14	129

The policy of education, rather than prosecution, which has been in vogue during the past years has been continued, and from observations and inspections made and the small number of complaints made to the department this policy has been justified.

Conditions concerning air pollution, caused by the emission of smoke, fly ash, etc., from smoke stacks are much improved when compared to the conditions obtaining some few years ago, a contributing factor to this is the various mechanical methods of stoking that is gradually taking the place of the hand firing. The various Central Heating Systems operating in the City are also responsible for quite a reduction in the amount of smoke that formerly was emitted into the atmosphere and spread over large areas.

In the industrial, commercial and large residental units, the major number of furnaces are now fed by mechanical stokers, and in the domestic field the use of the mechanical stoker for small furnaces is steadily increasing. Manufacturers have realized now that there is a large field to be served in supplying the small size mechanical stoker, and as there is some competition amongst the manufacturers for the trade, considerable improvement has been made in the working of these machines.

Surveys made in cities in the U.S.A. in residential areas show that the emission of smoke from chimneys where a mechanical stoker is operating is on an average only 12% of the amount emitted where hand firing is in use, these surveys were made possible by the Federal Government through the W.P.A. assisting the various City Smoke Abatement divisions.

Smoke nuisances which now mostly emanate from the small industrial properties are caused, not so much by using unsuitable fuel, but by improper methods of stoking. In small factories the fireman generally has additional duties, and in small business and residential properties it is common practice for one person to have charge of a number of furnaces. The result is that too long an interval is allowed between stoking, and the furnaces are overloaded with fuel, resulting in the emission of dense smoke.

Garbage and Refuse Incinerators

These are installed in most of the modern apartment blocks, and while the use of these has eliminated to some extent the nuisance due to improper storage of garbage, they have contributed somewhat to atmospheric pollution. Garbage having a high moisture content is often packed solid in the incinerator, obstructing the draught, smoulders and gives off dense smoke and objectionable odors.

The inverse to this is the placing of highly combustible refuse in the incinerator. If the grid guard situate on top of the flue is defective or too large in the mesh, lighter portions of partly burned refuse are emitted from the chimney. A verbal notice and instructions as to the proper method of operating is generally sufficient to remedy any nuisance arising from the above conditions.

In addition to the above, special inspections were made of Hotels, Undertakers' Parlors, Public Baths, Comfort Stations, Swimming Pools, Bedding Factories, Wiping Rag Premises, and other premises during the year.

Respectfully submitted,

J. SHEPHERD,

Smoke and Supervising Inspector.

Report of the Dairy Division

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honour to submit a report of the work of the Dairy Division for the year 1938.

The Survey

Considerable attention was drawn to the dairy industry during the early part of the year by the publicity given the deliberations of the Milk Control Board of Manitoba. This body conducted a lengthy investigation into all phases of the Greater Winnipeg Milk Supply.

A survey was conducted by this Division and as a result the license year beginning June 1st was marked by a reduction in the number of licenses granted to producer-distributors. A total of 49 milk vendors licenses was issued to this group. The 49 licenses were divided into two classes, 12 were considered satisfactory and 37 were placed on probation for three months. Of the 37 probationers, 3 ceased to operate and the remainder have complied with the Department's regulations.

The following shows the work done and the new equipment provided on these dairies:

22 new sanitary bottle fillers and cappers.
15 new mechanically operated bottle brushes.
8 new milk houses.
7 milk houses repaired.
8 stables repaired.

All vendors whose premises required any great outlay of money in order to qualify for a certificate were warned that changes in legislation might be made at any time. They were plainly told that the decision of going to additional expense to hold their license was entirely their own responsibility.

The Milk Board rendered every assistance in making satisfactory arrangements for producer-distributors whose licenses were cancelled.

The results of the sediment test and plate counts have been used as a basis for constant pressure upon a few vendors whose standing has been relatively low. Letters have been sent pointing out that there was no place in Winnipeg's milk supply for dirty milk and that a renewal of license depended upon the delivery to the consumer of a clean well-handled product.

In December on investigation was made of the quality of milk being dispensed in restaurants, cafes, etc., and all keepers were given a warning where the quality was found to be unsatisfactory.

Milk and Dairy Inspections

Inspections inside city	6,583
Inspections outside city	2,029
Examinations of milk and cream	4,142
Milk and Cream condemned and destroyed, lbs.	1,410
Mileage (country)	9,072

Milk Vendors

Dairy licenses issued	49	
Dairy licenses active		46
Plant licenses issued	10	
Plant licenses active		9
Total active licenses		55

Revenue from License Fees

49 Milk Vendors	$ 813.00
10 Milk Plants	1,004.00
Total revenue	$1,817.00
Average vendor license	$ 16.60
Average plant license	100.40

Approximate Proportion of Raw and Pasteurized Milk

Total daily consumption	18,000 gals.
Raw milk consumption	2,128 gals. or 12%
Pasteurized milk consumption	15,872 gals. or 88%

Grading of Retail Milk

Brands of milk graded	60
Brands of milk scoring 90% or better	31
Brands of milk scoring 89-90%	12
Brands of Milk scoring 85-90%	12
Brands of milk scoring below 85%	5

The encouraging feature is the 12 brands of milk between 89 and 90%. Had these been graded on their record during the last half of the sample year they would all have been over 90%.

Legislation

Due to changes which have taken place amendments to the City By-law may be in order.

As a result of Mr. E. C. Brown's retirement on pension considerable responsibility has fallen on the shoulders of the Inspectors. Mr. Jackson, Mr. Isaac and Mr. Bentham are all to be commended for their excellent work.

Respectfully submitted,

M. S. LOUGHEED,
Deputy Medical Health Officer.

Report of the Chief Food Inspector

A. J. Douglas, Esq., M.D.,

Medical Health Officer.

Dear Sir:

I have the honour to submit herewith a report on the work of the Food Inspection Division for the year 1938 together with a commentary thereon.

Premises under inspection during the year totalled two thousand, one hundred and fifty-seven, an increase of ten from the previous year. Six of the increase are accounted for in premises that have been doing business for years but were not included in our inspection work previously, namely: City and Kildonan Parks, two golf couses and two University Buildings. There were 19,143 inspections made during the year and 1,515 notices served to remedy existing conditions. Thirty-one new premises opened and twenty-seven closed their doors. The number of phone calls to office totalled four hundred and twenty-four, as usual, a high percentage were regarding premises licensed to do vitualling. Seven of above calls were made in respect to alleged food poisoning. In all such cases, immediate action is taken to procure any left over portions and notes are taken as to different foods injested before onset of sickness. Samples are submitted to Dr. M. S. Lougheed, City Bacteriologist, and to the City Chemist. Three of the samples submitted to the City Bacetriologist were reported as containing contamination, but whether these organisms of contamination were of the Salmonella group, or other bacteria that may cause food poisoning upon injestion, was not demonstrated. Verder and Sutton, 1933, contaminated sterile custard with S. Enteritidis, incubated them for 24 hours, then killed the organisms by thorough heating. This custard when fed to human volunteers produced no symptoms. In one case, however, in which the organisms in the custard were not all killed (checked by sterility test at time of injestion) the volunteer became violetntly ill with a case of typical food poisoning, and S. Enteritidis was recovered from his stool. In recent investigations of food poisoning in Austria, Hammerschmidt, 1935, drew the definite conclusion that outbreaks are due to infections with Salmonella from food or, in a few cases, by contact with persons actually ill with food poisoning. The evidence at the present time is overwhelmingly in favour of infection as the cause of food poisoning.

Calls to inspect premises for victualling, i.e., premises where food served is to be consumed therein, or for a transfer of license for such business were 55% of all calls made to the office.

There were sixty-two complaints made regarding unsound food. Twenty-three of these were brought to the office for examination. There were twenty-three seizures made and in sixteen instances, goods were either exchanged or money refunded to extent of purchase price.

There were twenty-one complaints made that plumbing was defective and out of order or water cut off. Bad odours, smoke nuisance accounted for ten additional, while unnecessary noise accounted for five more. Inspection for manufacturing and other businesses made a total of thirty-seven. Requests for inspection re conversion of part of store for living accommodation totalled nine. Complaints re dirty premises, seven, and

vermin infested premises, three. Exposure of foodstuffs outside or on sidewalks, contravention of Zoning By-law, sleeping in premises where food was held for sale, lack of ventilation, leaking roofs, slaughtering poultry and animals in store or dwellings, persons handling food while suffering from contagious disease go to make up some of the complaints attended to by your Inspectors with a view to correction and improvement.

Abattoirs—These establishments remain constant in number and are well conducted and kept clean when it is taken into consideration the nature of the business being conducted. One complaint was received regarding bad odours emenating from an abattoir, a check up and inspection of the method of deodorizing failed to show any defective apparatus or any lack of care in the matter of getting rid of such odours. Your inspectors had several complaints regarding tainted meat being sold by some of the retail trade, whether this taint originated in the abattoir or after delivery has not yet been decided but the conamination of beef with bacteria has been traced to the organisms from the hides of the animals, and these in turn originate in the soil of the feed lots. High pressure spray washing of the animals before the hide take-off markedly reduces the number of bacteria. Some form of radiation has also been attempted as a control measure, but, though scientifically possible, has not yet been reduced to commercial practice. Another source of contamination on wrapped packages may be the wrapping materials. In order to kill all spores on wrapping materials it is necessary to heat them above a minimum of 122 degrees F. for a considerable period of time, the higher the temperature the shorter the time. Thus two hours at 140 degrees and one hour at 149 degrees are equivalent.

Bakeries—The number of such premises remains the same as last year, namely: seventy-four. Several premises changed hands, one bakery closed and one new modern bakery opened for business. Bakers as well as those in the dressed meat business should be interested in the destruction of all bacteria and molds. To eliminate mold and bacteria troubles in the bakery it is claimed that the installation of a Steri Lamp (Ultra Violet Energy) will undoubtedly prove efficacious, thus ridding the bakery of the greatest source of contamination.

Bottling Plants—There are now thirteen such premises, not including breweries, operating for the manufacture of carbonated beverages and two who bottle fruit juice without the addition of carbon dioxide. As formerly, samples of all such products were taken at the bottling factory and submitted to Dr. M. S. Lougheed for bacteriological test. A total of one hundred and thirty-two samples were taken, of this number five showed plate counts above the tolerance for potable water but after instructing the management regarding care in washing bottles or pasteurizaion of syrups, on further sampling, the plate count was well within the tolerance. Five complaints were received in office regarding the presence of foreign or deleterious material being present in these products when customers were in the act of injesting such (product). An inspection and check up of the premises and methods of handling is made immediately, management interviewed and warned regarding carelessness on part of some employee. One bottling plant is being remodelled, an expenditure of seventy thousand dollars being contemplated. A digest from the Brewery Review 51.403, 1937, published in England states that for carbonated beverages the ultra violet ray lamp suspended in a vertical bronze tube will sterilize water at the rate of 660 gallons per hour while using 700 watts of electricity. Incoming water enters at one side of the bottom of the tube, ascends spirally in contact with the lamp.

Butcher Shops—Two hundred and twelve premises are now listed for this class of business. Three new modern and one remodelled premises were added to the number during the year. A considerable number of these merchants have had their ice boxes either converted to air conditioned or mechanical refrigeration during the year. Chilling meat without freezing it has the advantage over curing, pickling and canning in that it causes no physical changes, but its preservative effect is relatively short in duration. If the meat were frozen it would change both the distribution and the state of the water naturally contained in the meat, but it does not introduce foreign substances, as in pickling or curing, nor cause such chemical or physical changes as occur in canning. One firm has installed a display counter equipped with Steri Lamps, one such lamp to six linear feet of display, the temperature is raised to 45 degrees F. and the humidity correspondingly, this saves considerable in trimming losses, probably 5%, and a reduction in dehydration. Meat canvassers licensed to sell meat and meat products now total fifteen, their vehicles are inspected frequently to see that they are kept clean and sanitary and to see that no deleterious product is being canvassed.

Condemnations—During the past twelve months your inspectors were responsible for the seizure and condemnation of 38,823 lbs. of various foodstuffs. Vegetables headed the list, with 24,346 lbs., cereals, 8,724 lbs., being next on the list, with fish, veal and poultry in the order named, canned goods being sixth. Jobbers and Wholesalers, etc., again co-operated with the Department in sending over 93,000 lbs. of various foodstuffs that were unfit for sale to the incinerator for destruction. Pickles head the list with 47,160 lbs.; fruit and vegetables, 32,050 lbs.; canned goods, 9,650 lbs.; fish, 5,170 lbs.; eggs, candies, biscuits, cheese and meat follow in rotation. Should any of such goods inadvertantly find its way to the retail trade there would undoubtedly be a health hazard.

Confectioners—There were one hundred and sixty-eight premises listed under this category as at the 31st of December, 1938. Several samples of chocolate dairy drink were submitted for test as to bacterial count during the year, these were well within the tolerance for such product (Standard set by the Food and Drugs Division of the Federal Government). Another milk drink is now on the market called "Dairy Whip." This usually carries total solids of 2% above normal milk. The sale of such is being allowed by the Federal Government, who have the matter of a standard under consideration. The handling of ice cream in these and other premises needs some discussion as the cleansing of scoops seems of minor importance in some stores. Ice cream scoops dipped in water containers may get contaminated if persons serving are careless in regard to thorough cleansing of containers frequently and thereby contaminate each serving. If all such vendors were made to provide an ice cream scoop-well with continuous running water, any potential danger from bacterial infection would to a certain extent be eliminated. Bacterial counts of the water from scoop containers would doubtless prove the point.

A large number of confectioners are licensed to do victualling. Milk is dispensed as a beverage in practically all such premises. Whole milk served to patrons should be homogenized or served in bottles securely capped and sealed as originally delivered from the dairy or milk plants in such a way that the customer will have the privilege of drinking it from the original bottle or from the glass as he may desire. Custard pies and cream puffs, etc., should be refrigerated at 40 degrees F. Cream filled and Custard filled pies are subject to rapid increase of bacteria if the cream or custard fillings have not been pasteurizezd and are not refrigerated.

Fruit and Vegetables—A strict supervision is kept on all imported fruit and vegetables, especially leafy vegetables, for spoilage and also for spray residue. Samples are submitted to Mr. A. Blackie, City Chemist, for analysis, and, so far, these have been well within the tolerance. Your inspectors were forced to condemn three shipments of vegetables for spoilage, one in March, another in July and the other in November.

Grocery Stores—There are listed at present six hundred and thirty-five under this heading together with forty-five general stores, making a total of six hundred and eighty, and increase in this category of twenty-two for the year. Nineteen of the above have been transferred from the confectionery class to grocery, retail, as the stock exposed is over 50% grocery and provisions. Several complaints were made to office that sugar bought from this class of merchant had made people sick. On analysis of sugar in one instance it was found to be mixed with sodium chloride and in another with sago. One outstanding complaint was that cheese contained ground glass. On investigation and having sample analyzed, the City Analyst reported that the glass-like crystals in the cheese was one of the reducing sugars. probably formed from the milk sugar from dried milk stock (added to this type of cheese) and the moisture, while held under refrigeration.

Complaint was also brought to office that around 7% of all grocers, etc., keeping milk for sale had no refrigeration whatever for same. A survey was made and in no instance did your inspectors find conditions as outlined in complaint. Seven new modern premises were opened for business, three closed their doors, and 10% had their premises renovated.

Several inspections were made and advice given in connection with premises or part of premises going to be fumigated with Hydro-cyanic Acid gas. This gas is not highly reactive and will not combine chemically with foodstuffs but any foodstuffs having a high moisture content, unless contained in sealed containers, should be removed if practicable. Milk and butter, if unprotected, have a natural affinity for foreign odours and should be removed. All fresh meats should also be removed as the moisture content has a tendency to combine with the gas. A considerable number of this group of merchants do not seem to be aware of the potential bacterial hazard from flies. "A fly is a winged sponge flying hither and thither to fulfil the foul behests of contagion." (Lord Avebury). If some of these careless individuals could only see a fly under the microscope what a revelation it would be. Or, if they would only realize that foremost amongst the foes of health is the common house fly. Housewives and others could help in this matter by refusing to buy food from a butcher, baker, grocer or confectioner or eat in a cafe or restaurant if flies are prevelant on the premises.

Hawkers—Records show on increase of thirteen of these itinerant merchants from the previous year. Your inspectors had three complaints regarding the class of merchandise that some of these men were pedalling. One in particular was connected with poultry. Chickens purchased by the complainant, on examination, showed T.B. lesions in the body organs. The vendor was traced and warned that the sale of such produce in future would be followed by court action. Wagons are stopped and contents examined periodically to ensure that no spoiled produce is on sale to the public.

Ice—There are now some twenty-three or more cash and carry ice depots located throughout the city, some of these are controlled and operated by men with businesses located in outside municipalities and while they comply with the Public Health Act Regulations, it means a considearable increase in inspection work, not only in the city but also at the ice fields

where ice cutting is carried on. Should all such premises not be licensed? It would give a greater measure of control and would avoid a repetition of what occurred this year in regard to erection of cash and carry ice depots without any building permit. There is a common belief amongst some of those engaged in this class of business that ice clears itself of all impurities on freezing and that the ice produced from highly polluted waters is likely to be innocuous. These are generalizations that approach the truth, but which must be accepted with proper understanding of the mechanics involved. "First it should be kept in mind that the purification that takes place during freezing is not necessarily due to the death of organisms. True, the large percentage of the pathogenic organisms do die during the first few hours, but, as has been shown, that phenomenon may be considered normal. It occurs whether the water is freezing or not. The bacterial removal from ice is more of a mechanical removal. As ice forms, a sort of sludge is developed through decrease in solubility of various constituents of water and the organisms are precipitated with the sludge. Now if the freezing takes place very rapidly this sludge may be entrapped instead of being precipitated in which case the ice would remain infective. Experimentally such behavior has been demonstrated. Further, when freezing took place at such a rate that the usual purification occurred it could be shown that small twigs, leaves or other debris frozen in the ice retained large numbers of viable pathogenic organisms. The precipitated sludge remained infective at times as long as five months and when the ice was allowed to melt, the water again became infected. This sequence of events might be logically expected to occur in a reservoir during flooding." The survival of Typhoid in natue by P. J. Beard, Professor of Sanitary Science, Stamford University.

Markets—There were seven public markets in operation during the season. Three of these were comprised of individual stalls, one of two stalls and two of from three to five stalls and the one on North Main Street, operated by the Manitoba Vegetable and Potato Growers Association. No lavatory accommodation was provided by the agents or owners of the lots in five instances but stallholders had access to plumbing in adjacent buildings. It would appear that a more rigid adherence to the letter of the law may be in order otherwise a multiplicity of small markets will be scattered all over the city wherever traffic would appear to warrant such business. Numerous complaints were received, not only at the office but at the home, "by phone call," regarding the exposure of fruit and other foodstuffs outside doorways and on open space adjacent to stores in rear of the North End Market. Court proceedings is the only method of having this practice ended.

Restaurants—There are five hundred and thirty-three premises listed in this category, this includes grocery stores, drug stores, confectioners, snack shops and restaurants proper, and shows an increase of two over last year, but the University buildings, both United Colleges and Government building, have now been given permits to do victualling and this accounts for the increase. The calls to office to inspect and re-inspect for new premises and transfers totalled 55% of all calls booked. A survey of Class A restaurants was carried out in the early part of the year and when conditions noted at that time warranted notices, these were served and any contravention of regulations rectified. Your inspectors served notices in regard to additional plumbing and defective plumbing in thirty-five instances. Eighteen additional water closets were installed and four are held in abeyance, defects were all remedied. Sanitation and cleanliness are not exactly the same although they are closely related. Both are more dependent upon the attitude of the management and of the employee than upon the materials used. In the first place, only employees who show a willingness and desire to keep themselves clean and sanitary should be employed. Then see to it that they have the necessary utensils to do their work and that the equipment with which

they work is in good repair. Then there is no excuse for careless or sloppy work which results in lack of cleanliness. Plenty of scrubbing with a neutral soap, good brushes or mops, and hot water followed by a good rinsing is a good formula for keeping tables and floors clean. A good wash down once a week with a dilute solution of chlorine will keep premises sanitary as well as clean. The handling of a certain class of pastry, namely: custard and cream filled pastries, leaves much to be desired, when it is rememberd that there has been several outbreaks of food poisoning from this class of pastry. A regulation would be in order making it compulsory that cream and custard filled pastries must, in the course of its preparation, be heated to 175 degrees F. for at least 5 minutes, 160 deg. for 10 minutes or 145 deg. for thirty minutes, immediately after the prescribed heating period it should be cooled and placed in sterilized containers and stored at a constantly maintained temperature of less than 50 degrees F., until used.

Dining Hall—The dining hall maintained by the Dominion Government in conjunction with the Provincial Government for unemployed, unemployable and transient men was given periodic inspection in company with Inspector Pickering. All foodstuffs in stock at time of visit were examined as to soundness and healthfulness and at no time did we find any decayed or unwholesome stock. Considerable improvements have been carried out in the basement by screening off section where meats are handled and installing concrete floor. Premises are kept clean. The menu is varied and those under the care of physicians receive spcial diets.

Sausage Manufacturers—There are, at present. thirteen premises licensed to carry on this business in a wholesale manner. Several of these operating such business were fined as to sulphite content of their product. Prosecution was taken under the Food and Drugs Act. Warnings were given in two instances in regard to excess cereal and moisture content by your inspectors.

Zoning—There was only one application to start a home industry in a Zoned Area this year, this was referred to the Zoning Committee, permit refused.

In conclusion, may I have the liberty to thank Dr. M. S. Lougheed, City Bacterialogist, and Mr . A. Blackie, City Chemist, for their courteous and comprehensive co-operation at all times in regard to samples of food alleged to have caused sickness or foreign or deleterious material found in such samples; also to my colleagues, Messrs. Mines and Williams, for their willingness and interest at all times in carrying out the many and varied duties of the Division.

Respectfully submitted,

R. McQUILLAN,

Chief Food Inspector.

Comfort Stations Division

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

The eight Comfort Stations, in five buildings, operated by the City continued during the year under the supervision of this Department. The expenditures on this service in 1938 were as follows:

(a)	Personal Services	$18,473.20
(c)	Material, Supplies and Repairs	1,257.88
(e)	Fuel, Water, Light and Power	3,103.60
(h)	Auto Expense	180.00
(i)	Interest and Sinking Fund (Uncontr.)	3,738.07
	Gross expenditures	$26,752.85
	Revenue collected	199.32
	Net expenditures	$26,553.53

Net cost per Capita.....11.9c.

Respectfully submitted,

A. G. LAWRENCE,
Secretary.

Bureau of Child Hygiene

A. J. Douglas, Esq., M.D.,
Medical Health Officer.

Dear Sir:

I have the honor to submit my twentieth annual report covering the work of the Bureau of Child Hygiene during the year 1938.

Infant Mortality—The slight rise in the infant mortality rate which took place in 1936 and 1937 was interrupted in 1938, the rate for the year being 40.6 per 1,000 live births, the lowest recorded for the City. Mortality was unusually favorable for the first eleven months, there occurring from January to November, only 89 deaths of babies under one year of age, or an average of eight per month, giving a rate of 37. In December, however, there occurred no less than 22 infant deaths, mainly due to Diseases of Early Infancy, and the corrected rate for the year was increased to 40.6, as compared with 47.0 for 1937, and 43.0 for 1936. The corrected rate is based on live births and infant deaths to Winnipeg mothers, and includes those attending St. Boniface Hospital. The crude rate, based on live births and infant deaths as registered in Winnipeg, was 41.3 for 1938, as compared with 46.4 for 1937, and 44.4 for 1936.

By months, the 1938 infant deaths were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
9	3	4	15	9	6	14	10	7	5	7	22	111

The causes of death for 1938 and 1937, corrected figures, were as follows:

	Corrected Totals			
	1938		1937	
	Deaths	Rate	Deaths	Rate
Diseases of Early Infancy and Malformations	73	26.7	76	27.5
Diseases of Digestive System	12	4.4	8	2.9
Diseases of Respiratory System	17	6.2	18	6.5
All other diseases	9	3.3	28	10.1
	111	40.6	130	47.0

Infant Mortality According to Sections of City

The infant death rate ranged from 2.0 to 9.6 per 100 live births in the various sections of the City. The figures for each section are as follows:

	Nursing Section	Live Births	Infant Deaths	Death Rate per 100 Births
A	Fort Rouge, west of Pembina	237	11	4.6
B	Fort Rouge, east of Pembina	159	8	5.0
C	Red River to Spence Street	267	12	4.5
C1	Young to Sherbrook, south of Ellice	97	2	2.1
C2	Young to Sherbrook, north of Ellice	83	8	9.6
D	Assiniboine River to Ellice Avenue	296	6	2.0
E	Ellice Ave. to Notre Dame Ave	252	5	2.0
F	Notre Dame to C.P.R. Tracks, west of Sherbrook	221	9	4.1
G	Notre Dame to C.P.R. Tracks, east of Sherbrook	226	16	7.1
H	Tracks to Manitoba Ave., east of Nos. 500..	199	5	2.5
J	Tracks to Manitoba Ave., west of Nos. 500..	153	8	5.2
K	Magnus Ave. to North Limits, west of Nos. 500	185	8	4.3
L	Magnus Ave. to North Limits, east of Nos. 500	217	6	2.8
M	Elmwood	140	7	5.0
	City Residents, corrected figures	2,732	111	4.1
	Non-Residents (excluded above)	1,388	59	4.2
	St. Boniface Registrations (included)	391	16	4.1

Housing Status of Family

	Families in Rooms		Families in Self Contained 2-room Suites or Houses	Families in 3 Rooms or over		Total Known Conditions	Unknown	Total	Percentage of Known Families in 1 or 2 Rooms
	1	2		Sharing House	Self Contained House or Suite				
A	—	10	3	36	183	232	5	237	6%
B	5	15	....	25	100	145	14	159	14%
C	97	52	11	25	58	243	24	267	66%
C1	18	21	....	4	39	82	15	97	47%
C2	5	23	22	4	18	72	11	83	69%
D	7	51	17	34	152	261	35	296	29%
E	6	42	16	29	140	233	19	252	27%
F	6	38	....	64	99	207	14	221	21%
G	25	67	12	21	71	196	30	226	53%
H	2	64	....	60	59	185	14	199	36%
J	2	46	63	11	31	153	....	153	72%
K	2	4	11	42	117	176	9	185	10%
L	4	16	5	65	121	211	6	217	12%
M	....	6	5	28	90	129	11	140	8%
Total	179	455	165	448	1,278	2,525	207	2,732	32%

A comparison of the above table with the foregoing table showing the infant mortality rate according to sections of the City, reveals the close relationship between improperly housed families and high infant mortality rates, but that poor housing is not the complete answer is shown by comparing Sections B and C, Section B being a good residential quarter with only 14% of the births occurring to families in 1 or 2 rooms, yet the infant mortality rate was 5.0 per 100 live births, while in Section C, consisting largely of boarding houses, 66% of the births occurred to families living in 1 or 2 rooms, but the infant death rate was only 4.5 per 100 live births.

The 207 unknown births consist of illegitimate births and births not visited, either because the infant died in hospital or could not be located.

Stillbirths and Infant Deaths, 1 to 14 days, In Hospital

Hospials	Live Births	Still-births	Infant Deaths 1-14 days	Rate per 1,000 Live Births: Still-births	Rate per 1,000 Live Births: Infants 1-14 days
General	594	20	14	34	24
Misericordia	524	20	9	38	17
Grace	434	12	12	28	28
St. Joseph's	396	13	7	33	18
Victoria	221	2	9	9	41
Concordia	28	....	....	....	....
Children's	....	....	6	....	....
St. Boniface*	391	16	7	41	18
All Hospitals	2,588	83	64	32	25
Private Homes	144	6	5	42	35
Corrected Totals	2,732	89	69	33	25
Non-Residents	1,388	39	24	28	17

*Winnipeg Residents only.

Of the 2,732 live births to Winnipeg mothers, 2,588, or 94.7%, occurred in hospitals; in 1937 the percentage was 92.0%; in 1930, 82.5%; in 1926, 70.9%; in 1917, 36.3%; and in 1912, 31.5%.

Twelve obstetricians attended 1,017 out of the 2,732 live births to Winnipeg mothers, the remaining 1,715 being attended by over 200 physicians. In the first group, nine deaths of babies under two weeks of age occurred amongst Winnipeg births, giving a rate of 8.8 per 1,000 live births; in the second group, 60 deaths of babies under two weeks of age occurred, giving a rate of 35.2 per 1,000 live births.

Midwives attended ten live births in 1938 as compared with six in 1937; 83 in 1930; and 1,159, stillbirths included, in 1918.

Stillbirths—There were 89 stillbirths to City residents in 1938, as compared with 85 the previous year, giving the corrected rates of 33.0 and 31.0 per 1,000 live births. Both these rates are around the normal for this City.

The corrected combined infant death rate and stillbirth rate is 70.9; a decrease over the 1937 rate but not the lowest recorded for the City.

Puerperal Mortality—One of the highlights of the year is the outstanding success of obstetricians, family physicians and hospitals in reducing puerperal deaths. In 1938, only six mothers died in child-birth compared with 16 in 1937. These figures give rates of 2.2 and 5.8 per 1,000 live births respectively, the 1938 rate being the lowest in the City's history. The deaths were classified as follows:

	1938	1937	1936
Puerperal septicemia (145a)	..	2	4
Abortion (140-141)	2	7	2
Other puerperal causes	4	7	9
Total puerperal deaths	6	16	15
Winnipeg live births	2,732	2,766	2,714
Corrected rate per 1,000 live births	2.2	5.8	5.5

Visiting Nurses—Miss Louise Spratt retired on pension in September after 23 years of service, most of which were spent in the Sick Baby Clinic in the Milk Depot. Miss M. M. Wonnacott replaced Miss Spratt in the Clinic and no additional nurse was appointed, so that the staff has now dropped to twelve.

The visiting nurses made 27,542 calls to babies' homes and seven visits to infants' boarding homes. The number of new cases visited by the nurses totalled 2,160; sick calls, 469; cases referred to private physicians, 552; and cases referred to Milk Depot Clinic, 228. These latter totals are considerably below last year's figures and reflect the reduced amount of sickness amongst babies during the year. Of the 2,732 City births, 553 were births to unemployed families and 97 to part-time employees and pensioners. The status was unknown in 351 cases, (illegitimate, infants dying in hospitals, etc.), leaving the births to employed families, (by difference), as 1,731.

Ten Well Baby Centres and the Milk Depot continued to operate. The Fort Rouge Station was changed from the Crescent United Church to the Masonic Temple in October, but the other Stations remained as before. The attendance totalled 16,478, distributed as follows:

Section	Station	Afternoons	1938 Attendance	Average
A	Crescent United Church / Masonic Temple	51	982	19
C	Holy Trinity Church	51	1,227	24
D	Home Street United Church	48	1,760	37
E	Maryland United Church	49	3,494	71
F	MacLean United Church	50	886	18
F	Weston Salvation Army Home	26	830	32
G	St. Andrew's Church	52	1,915	37
H	All People's Mission	49	902	18
J	Robertson House	51	2,392	47
L	Milk Depot	51	613	12
M	St. Paul's Lutheran Church	52	1,477	28
	Totals and Average	530	16,478	31

The nurses were again active in canvassing families in connection with the anti-diphtheria campaign and compiled a list of 1,049 names of pre-school age children whose parents desired them to receive toxoid. Further particulars of this campaign are given in the report of the Chief of the Division of Communicable Diseases.

Sick Baby Clinic—The attendance at the Sick Baby Clinic totalled 5,999, ranging from 384 in January to 588 in May. The number of new cases registered totalled 435, the great majority being infants of unemployed families. The attendance and new cases for 1937 were 5,736 and 447, respectively. Drs. R. F. Rorke and F. G. Schwalm continued as part-time physicians on alternate mornings.

Milk Dispensary—There was a decrease in the number of feedings prepared as compared with 1937, the totals being 23,184 and 23,983. The majority of the feedings were for infants of unemployed families, but $354.55 were collected from parents able to pay from 10 to 25c a day. In 1937, collections totalled $267.35. The Dispensary also prepared 412 feedings for the Children's Hospital for which $62.50 were paid.

The nursing, dispensary and recording staffs carried out their duties conscientiously and efficiently, and I wish to place on record my appreciation of their loyal service and that of Miss Louise Spratt, who retired on pension in September. Miss Spratt was in charge of the Sick Baby Clinic for over twenty years and at all times showed that devotion to duty which is the characteristic of the nursing profession. The staff joins me in wishing her a long and happy life after her busy years with this Department.

Respectfully submitted,

A. G. LAWRENCE,

Manager, Bureau of Child Hygiene.

Statistician's Report

A. J. Douglas, Esq., M.D.,

Medical Health Officer.

Dear Sir:

I have the honour to submit herewith my twenty-sixth report on Vital Statistics, covering the year 1938. Through the courtesy of the Winnipeg Registrar, Mr. G. F. Bentley, City Clerk, we have received copies of the birth and death registrations filed in his department, and through the courtesy of the St. Boniface Registrar, Mr. E. A. Poulain, City Clerk and Treasurer, we have been permitted to make copies of the birth and death registrations of Winnipeg residents who were born or who died in St. Boniface Hospital.

This report shows both crude and corrected totals and rates, the corrected figures being obtained by eliminating non-residents and including residents of Winnipeg who died in the adjoining City of St. Boniface, the St. Boniface Sanatorium and the Ninette Sanatorium. The crude figures are those registered by the Winnipeg City Clerk.

Respectfully submitted,

A. G. LAWRENCE,

Secretary.

Infant Mortality, 1912-1938

	CORRECTED			CRUDE		
	Live Births	Infant Deaths	Rate per 1,000 Births	Live Births	Infant Deaths	Rate per 1,000 Births
1938	2,732	111	40.6	3,729	154	41.3
1937	2,766	130	47.0	3,686	171	46.4
1936	2,714	117	43.0	3,599	160	44.4
1935	2,862	120	41.9	3,791	163	43.0
1934	2,935	134	45.6	3,749	174	46.4
1933	3,032	134	44.2	3,810	173	45.4
1932	3,335	146	43.8	4,106	184	44.8
1930	3,627	210	57.9	4,645	269	57.9
1925	3,781	252	66.6	4,632	315	68.0
1920	.....	.....	.....	6,174	625	101.2
1915	.....	.....	.....	5,823	619	106.3
1912	.....	.....	.....	4.870	1,006	206.6

TYPHOID FEVER MORTALITY RATES PER 100,000 POPULATION, 1904-1938

1904	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
248.3	3.5	9.5	8.2	7.6	10.3	5.7	5.1	1.5	2.5	3.1	3.1	4.0	3.0	1.0	2.4	.0	1.4	.9	1.8	.9	1.8	.4	.4	1.8
Corr. Rate City			6.0	6.5	7.4	.0	.0	.0	.5	1.0	1.0	1.0	1.5	.0	.5	.5	1.9	.5	.9	1.3	.4	.0	.4	.4	

CRUDE MORTALITY RATES PER 100,000 POPULATION FOR LEADING CAUSES OF DEATH, 1919-1938

Year	Population	Tuberculosis of Lungs (23)	Tuberculosis, other forms (24-32)	Cancer (all forms) (45-53)	Meningitis (79)	Cerebral Hemorrhage (82a)	Diseases of the Heart (90-95)	Acute and Chronic Bronchitis (106)	Pneumonia, all forms (107-109)	Appendicitis and Typhlitis (121)	Hernia, Intestinal Obstruction (122)	Acute and Chronic Nephritis (130-131)	Puerperal Deaths (140-150)	External Causes (163-214)
1938	222,454	21.6	6.7	148.8	.4	54.8	208.1	4.5	44.9	9.0	12.1	24.3	5.4	61.6
1937	223,103	22.8	12.1	144.3	2.7	71.3	204.4	4.9	52.4	10.3	10.7	18.8	9.9	54.7
1936	224,533	28.5	7.6	156.0	4.0	50.8	184.4	2.7	57.9	14.7	13.4	28.5	8.9	73.9
1935	223,017	27.8	9.4	148.0	2.2	55.2	167.7	2.2	48.0	12.5	15.7	24.2	7.6	52.9
1934	221,242	33.9	5.0	125.2	2.2	44.8	152.8	5.0	50.2	14.0	14.0	27.6	7.7	50.2
1933	218,545	27.4	4.6	136.3	4.6	49.9	152.4	4.6	44.8	17.8	12.8	25.2	5.9	52.6
1932	215,768	28.3	8.3	129.7	4.6	51.9	149.7	4.6	49.1	11.6	8.3	32.0	11.6	59.8
1931	212,815	39.0	10.8	128.3	1.9	51.2	110.9	7.5	48.4	16.4	15.0	27.7	10.3	55.4
1930	209,286	46.3	16.2	113.2	6.7	52.6	122.8	3.3	54.0	17.7	11.5	33.9	10.0	59.2
1929	205,083	40.5	16.1	120.9	4.9	55.1	117.5	4.9	71.7	9.3	12.7	38.0	13.6	64.8
1928	202,377	36.1	20.3	105.2	6.4	48.9	129.0	5.9	62.3	15.8	15.8	34.1	11.4	65.2
1927	198,932	37.2	9.5	102.5	5.0	38.1	112.6	5.5	75.5	16.1	11.1	30.7	12.6	57.8
1926	197,125	44.6	14.2	100.4	7.6	39.1	105.5	4.0	70.5	15.7	12.2	32.5	12.7	62.9
1925	195,148	41.5	11.8	95.3	7.2	41.5	84.0	7.2	68.1	20.0	9.2	33.8	12.8	57.9
1924	194,850	44.6	16.9	88.8	8.7	42.6	96.5	7.7	80.6	13.8	6.7	20.5	13.3	43.6
1923	199,300	48.2	16.0	82.3	6.0	28.6	87.8	5.5	77.3	9.5	9.5	28.6	13.0	52.2
1922	199,129	52.7	11.0	93.4	6.0	45.2	87.4	5.0	87.4	19.1	9.5	29.1	12.5	40.7
1921	196,947	50.8	26.4	87.3	8.1	32.0	91.9	4.6	84.8	14.2	4.6	18.3	10.7	46.7
1920	192,571	71.7	20.8	79.4	13.0	45.7	68.6	13.5	132.9	14.0	9.9	25.3	28.0	47.3
1919	183,378	72.0	24.5	73.1	10.9	30.5	72.0	18.0	105.2	17.4	13.6	33.3	15.3	57.2

STILLBIRTHS, LIVEBIRTHS AND DEATHS, CRUDE AND CORRECTED FIGURES, BY MONTHS AND SEX, 1938

1938	STILLBIRTHS						LIVE BIRTHS						DEATHS					
	As Registered			Non-Res. Dedc'td	Res. Added	Corrected Totals	As Registered			Non-Res. Dedc'td	Res. Added	Corrected Totals	As Registered			Non-Res. Dedc'td	Res. Added	Corrected Totals
Mth.	M.	F.	T.				M.	F.	T.				M.	F.	T.			
Jan.	5	....	5	1	1	5	105	98	203	81	37	159	84	98	182	39	13	156
Feb.	10	5	15	7	....	8	152	139	291	106	28	213	71	44	115	26	11	100
Mar.	2	4	6	1	....	5	166	144	310	105	25	230	99	71	170	38	12	144
April	7	5	12	3	2	11	142	142	284	121	35	198	82	76	158	38	15	135
May	5	5	10	6	....	4	149	170	319	112	34	241	89	56	145	36	10	119
June	1	6	7	3	3	7	157	148	305	109	25	221	101	62	163	41	8	130
July	10	3	13	4	1	10	162	176	338	127	42	253	92	72	164	39	23	148
Aug.	8	6	14	4	2	12	151	169	320	119	41	242	83	63	146	42	10	114
Sept.	3	3	6	2	1	5	159	146	305	131	29	203	75	67	142	36	14	120
Oct.	5	6	11	4	2	9	181	133	314	131	32	215	85	76	161	42	18	137
Nov.	3	3	6	3	1	4	171	133	304	99	24	229	87	74	161	41	22	142
Dec.	3	4	7	1	3	9	231	205	436	147	39	328	92	90	182	32	17	167
	62	50	112	39	16	89	1926	1803	3729	1388	391	2732	1040	849	1889	450	173	1612

Year	Population	STILLBIRTHS				LIVE BIRTHS				DEATHS			
		Crude		Corrected		Crude		Corrected		Crude		Corrected	
		Totals	*Rate	Totals	*Rate	Totals	†Rate	Totals	†Rate	Totals	†Rate	Totals	†Rate
1938	222,454	112	30.0	89	32.6	3,729	16.76	2,732	12.28	1,889	8.49	1,612	7.24
1937	223,103	102	27.6	85	30.7	3,686	16.52	2,766	12.40	1,908	8.55	1,641	7.35
1936	224,533	97	26.9	63	23.2	3,599	15.53	2,714	12.08	2,039	9.08	1,746	7.77
1935	223,017	122	32.3	98	34.2	3,791	17.00	2,862	12.83	1,841	8.25	1,580	7.08
1934	221,242	140	37.3	114	38.8	3,749	16.94	2,935	13.27	1,683	7.61	1,473	6.66
1933	218,545	136	35.7	111	36.6	3,810	17.43	3,032	13.87	1,681	7.69	1,491	6.82

*Per 1,000 Live Births. †Per 1,000 Population.

DEATHS BY MONTHS, SEX AND AGE PERIOD, 1938 (Crude Figures)

	Under 1		1 to 2		3 to 4		5 to 9		10 to 19		20 to 29		30 to 39		40 to 49		50 to 59		60 to 69		70 to 79		80 to 89		90 to 99		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	6	5	1	....	2	1	1	....	1	....	2	4	4	4	10	9	11	14	18	21	17	27	10	11	1	2	84	98
February	5	....	....	1	....	....	....	....	2	1	4	3	1	3	4	9	13	6	13	8	22	9	6	4	1*	....	71	44
March	6	2	1	3	....	1	1	1	3	....	3	4	5	4	4	11	13	16	28	8	22	11	11	10	2	....	99	71
April	8	11	4	1	....	1	2	1	1	2	2	2	6	3	3	10	18	14	11	11	16	12	10	8	1	....	82	76
May	10	4	....	....	....	....	1	1	2	....	3	2	3	2	6	3	17	11	28	15	14	12	5	6	....	....	89	56
June	9	5	....	1	....	1	1	....	3	3	6	2	3	5	13	5	13	16	21	9	20	12	10	3	2	....	101	62
July	6	9	1	....	2	1	2	1	4	1	5	3	4	10	4	7	17	11	21	10	18	10	8	7	....	2	92	72
August	9	2	....	2	....	1	1	3	4	1	8	6	3	1	2	6	17	11	22	12	15	12	2	5	....	1	83	63
September	7	5	....	1	1	2	2	1	1	2	1	3	....	3	4	4	19	13	18	5	17	15	5	12	....	1	75	67
October	9	2	2	....	....	....	....	....	2	3	3	3	7	6	5	7	16	19	18	15	17	10	6	10	....	1	85	76
November	7	3	2	1	2	....	1	1	4	3	3	4	4	3	3	5	9	11	22	15	17	16	9	10	4	2	87	74
December	13	11	....	1	1	....	1	1	1	5	1	2	4	2	11	5	14	7	19	19	15	18	12	17	....	2	92	90
Totals, 1938	95	59	11	11	8	8	13	10	28	21	41	38	44	46	69	81	177	149	239	148	210	164	94	103	11*	11	1,040	849
Crude Totals	154		22		16		23		49		79		90		150		326		387		374		197		22		1,889	
Non-Res. Deducted	59		10		8		11		25		25		30		48		81		75		56		19		3		450	
Residents Added	16		....		....		2		3		11		12		27		31		38		24		8		1		173	
Corrected Totals	111		12		8		14		27		65		72		129		276		350		342		186		20		1,612	
Crude, per cent.	8.2		1.2		.8		1.2		2.6		4.2		4.7		7.9		17.3		20.5		19.8		10.4		1.2		100%	
Corrected per cent.	6.9		.7		.5		.9		1.7		4.0		4.5		8.0		17.1		21.7		21.2		11.5		1.3		100%	

*1 death, male—110

Nativity of Decedents, 1938

(Corrected Figures)

	Deaths	Per Cent. of Total
Canada	659	40.9
British Isles	495	30.7
Europe (Excluding British Isles)	374	23.2
United States	54	3.4
Asia	16	.9
Other Cuntries	9	.6
Unknown	5	.3
	1,612	100.0

Attendant at Birth

(As Registered)

	1938		1937		1918*	
Physicians	3,719	99.7%	3,674	99.7%	4,707	80.2%
Midwives	10	.3%	11	.3%	1,159	19.8%
Unattended	....	.....	1			
Unknown	....					

*Includes Stillbirths.

Stillbirths According to Nationality of Mothers, 1938

(Corrected Figures)

	Stillbirths	Rate per 1000 Live Births
Canadian	62	29
British	12	50
Southern and Central Europeans	12	41

Order of Live Births, 1938

(Corrected Figures)

	1938	1937	1938	1937
First Children	1,301	1,291	47.6%	46.6%
Second Children	756	700	27.7%	25.3%
Third Children	310	348	11.3%	12.6%
Fourth Children	144	160	5.3%	5.8%
Fifth to 15th Children	219	262	8.0%	9.5%
Unknown	2	5	.1%	.2%
Totals	2,732	2,766	100.0%	100.0%

INFANT MORTALITY—CAUSE OF DEATH—1938, 1937

(Number of Deaths, Corrected)

	1938	1937
Acute communicable diseases	2	8
Other general diseases	2	12
Of nervous system and of organs of special sense	1	6
Of respiratory system	17	18
Of digestive system	12	8
Malformations and diseases of early infancy	73	76
All other diseases	4	2
Totals	111	130

Rates Per 1,000 Live Births, Corrected

	1938	1937
Acute communicable diseases	.7	2.9
Other general diseases	.7	4.3
Of nervous system and of organs of special sense	.4	2.2
Of respiratory system	6.2	6.5
Of digestive system	4.4	2.9
Malformations and diseases of early infancy	26.7	27.5
All other diseases	1.5	.7
Totals	40.6	47.0

Per Cent. of Total, Corrected

	1938	1937
Acute communicable diseases	1.8	6.2
Other general diseases	1.8	9.2
Of nervous system and of organs of special sense	.9	4.6
Of respiratory system	15.3	13.8
Of digestive system	10.8	6.2
Malformations and diseases of early infancy	65.8	58.5
All other diseases	3.6	1.5
Totals	100.0	100.0

Classification of Ages of Decedents Under One Year of Age—1938

	CORRECTED			CRUDE		
	No. of Deaths	Rate per 1,000 Births	Per Cent. of Total	No. of Deaths	Rate per 1,000 Births	Per Cent. of Total
Minutes to 1 week.....	62	22.7	55.9	77	20.7	50.0
Over 1 to 2 weeks.....	7	2.5	6.3	9	2.4	5.9
Over 2 to 3 weeks.....	3	1.1	2.7	4	1.1	2.6
Over 3 weeks to 1 month	1	.4	.9	2	.5	1.3
Minutes to 1 month.....	73	26.7	65.8	92	24.7	59.8
Over 1 to 2 months.....	9	3.3	8.1	18	4.8	11.7
Over 2 to 3 months.....	13	4.8	11.7	13	3.5	8.4
Minutes to 3 months.....	95	34.8	85.6	123	33.0	79.9
Over 3 to 6 months.....	13	4.7	11.7	19	5.1	12.3
Over 6 to 9 months.....	1	.4	.9	7	1.9	4.6
Over 9 and under 12 months	2	.7	1.8	5	1.3	3.2
	111	40.6	100.0	154	41.3	100.0

Infant Mortality According to Nationality of Mothers—1938

(Corrected Figures)

	Live Births	Infant Deaths	Rate per 1,000 Births
Canadian	2,116	81	38
English and Welsh	125	5	40
Irish	32	....	....
Scotch	83	3	36
American (U.S.A.)	61	8	....
Scandinavian	15	1	....
Southern and Central European	295	13	44
All others	5	....	....

1938

CAUSE OF DEATH BY AGE AND SEX
CORRECTED FIGURES

(Non-Residents excluded; St. Boniface, Ninette and St. Boniface Sanitarium Registrations of Winnipeg Residents included.)

	SEX		AGE IN YEARS														
	Male	Female	Under 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	Totals
1. Typhoid Fever (1)	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
6. Whooping Cough (9)	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
7. Diphtheria (10)	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
8. Influenza (11)	8	4	.....	.....	1	.....	.....	.....	1	2	1	2	2	3	.....	.....	12
10. Tuberculosis of the respiratory system (23)	31	13	.....	.....	.....	1	1	10	12	8	8	2	2	.....	.....	.....	44
11. Other forms of tuberculosis (24, 26, 30, 32)	8	3	.....	1	.....	.....	1	2	2	4	.....	1	.....	.....	.....	.....	11
12. Syphilis (34)	12	5	.....	.....	.....	.....	.....	.....	3	2	4	6	2	.....	.....	.....	17
14. Other infectious and parasitic diseases (13, 15, 16, 17, 36, 44)	6	4	1	.....	.....	2	.....	2	2	1	.....	1	.....	1	.....	.....	10
15. Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	137	146	.....	.....	.....	2	3	2	7	29	78	79	69	13	1	.....	283
16. Tumors, nonmalignant, or of which the nature is not specified (54, 55)	6	7	.....	.....	.....	.....	2	1	2	3	2	1	1	1	.....	.....	13
17. Chronic rheumatism and gout (57)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	2
18. Diabetes mellitus (59)	3	6	.....	.....	.....	.....	.....	.....	.....	2	.....	4	3	.....	.....	.....	9
19. Alcoholism (acute or chronic) (75)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	2
20. Other general diseases and chronic poisonings (56, 63, 66, 67, 68, 69, 71, 72, 73)	17	17	1	.....	1	.....	3	4	4	5	8	3	3	2	.....	.....	34
21. Progressive locomotor ataxia and general paralysis of the insane (80, 83)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	2
22. Cerebral hemorrhage, cerebral embolism and thrombosis (82)	63	80	.....	.....	.....	.....	.....	2	4	10	14	41	46	23	3	.....	143
23. Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 87, 89)	13	11	1	.....	.....	2	3	1	1	4	4	3	4	1	.....	.....	24

24. Diseases of the heart (91, 92, 93, 94, 95)	264	168	.....	.....	1	1	3	10	11	16	76	109	125	76	4	.....	432
25. Other diseases of the circulatory system (96, 97, 99, 100, 101, 102, 103)	26	33	1	.....	.....	.....	.....	.....	2	4	6	15	12	16	3	.....	59
26. Bronchitis (106)	8	1	1	.....	.....	.....	.....	.....	1	1	.....	2	2	2	.....	.....	9
27. Pneumonias (107, 108, 109)	42	38	14	3	.....	1	.....	3	2	5	7	11	18	14	1	1	80
28. Other diseases of the respiratory system (tuberculosis excepted) (104, 105, 110, 111, 112, 113, 114)	20	13	2	1	.....	.....	.....	1	2	5	8	6	3	4	1	.....	33
29. Diarrhea and enteritis (119, 120)	10	6	8	2	.....	.....	1	.....	1	2	.....	1	1	.....	.....	.....	16
30. Appendicitis (121)	12	5	.....	1	1	1	1	2	1	2	1	6	.....	1	.....	.....	17
31. Diseases of the liver and biliary passages (124, 125, 126, 127)	15	19	.....	.....	.....	.....	.....	1	2	3	6	11	8	3	.....	.....	34
32. Other diseases of the digestive system (115, 117, 122, 123, 128, 129)	35	14	4	1	.....	3	2	2	1	5	10	6	11	4	.....	.....	49
33. Nephritis (130, 131, 132)	24	32	.....	.....	.....	.....	2	2	3	2	16	13	11	6	1	.....	56
34. Other diseases of the genitouinary system (133, 134, 137, 138, 139)	20	4	.....	.....	.....	.....	.....	1	2	.....	6	8	5	2	.....	.....	24
36. Other diseases of pregnancy, childbirth and the puerperal state (141, 142, 144, 148)	.....	6	.....	.....	.....	.....	.....	3	1	2	.....	.....	.....	.....	.....	.....	6
37. Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (152, 153, 155)	2	4	.....	1	.....	.....	.....	.....	.....	.....	3	1	.....	.....	1	.....	6
38. Congenital debility and malformations, premature birth and other diseases of early infancy (157, 159, 160, 161)	46	31	73	1	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	77
39. Senility (162)	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	2	.....	5
40. Suicide (163, 164, 165, 166, 167, 168, 169, 170)	19	8	.....	.....	.....	.....	2	6	3	4	5	6	.....	1	.....	.....	27
41. Homicide (174)	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
42. Violent and accidental deaths (suicide and homicide excepted) (178, 179, 180, 181, 182, 183, 184, 186, 189, 190, 194, 203, 205, 207, 210, 211, 212)	48	22	2	1	2	1	3	9	2	6	11	9	11	11	2	.....	70
43. Cause of death not specified or ill-defined (200)	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Totals	901	711	111	12	8	14	27	65	72	129	276	350	342	186	19	1	1612

1938

CAUSE OF DEATH BY AGE AND SEX

CRUDE FIGURES

(As Registered; Non-Residents included)

	SEX		AGE IN YEARS														
	Male	Female	Unde 1	1 to 2	3 to 4	5 to 9	10 to 19	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	Totals
1. Typhoid Fever (1)	1	3	.....	1	.....	.....	1	.....	1	.....	.....	1	.....	.....	.....	.....	4
6. Whooping Cough (9)	1	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
7. Diphtheria (10)	2	3	.....	1	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
8. Influenza (11)	7	4	.....	.....	1	.....	.....	.....	1	1	1	2	2	3	.....	.....	11
10. Tuberculosis of the respiratory system (23)	31	17	.....	.....	.....	1	5	9	12	8	7	3	3	.....	.....	.....	48
11. Other forms of tuberculosis (24, 25, 26, 30, 31, 32)	9	6	.....	1	.....	1	.....	3	4	4	1	1	.....	.....	.....	.....	15
12. Syphilis (34)	9	4	1	.....	.....	.....	.....	.....	2	2	2	4	2	.....	.....	.....	13
14. Other infectious and parasitic diseases (13, 15, 16, 17, 18, 36, 44)	13	11	2	2	1	5	4	4	3	1	1	.....	.....	1	.....	.....	24
15. Cancer and other malignant tumors (45, 46, 47, 48, 49, 50, 51, 52, 53)	152	179	.....	.....	.....	2	2	1	10	38	88	95	80	13	2	.....	331
16. Tumors, nonmalignant, or of which the nature is not specified (54, 55)	7	11	.....	.....	.....	.....	2	1	2	5	4	2	1	1	.....	.....	18
17. Chronic rheumatism and gout (57)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	2
18. Diabetes mellitus (59)	5	8	.....	1	.....	1	1	.....	.....	3	.....	4	3	.....	.....	.....	13
19. Alcoholism (acute or chronic) (75)	2	1	.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	3
20. Other general diseases and chronic poisonings (56, 63, 66, 67, 68, 71, 72)	22	22	1	2	2	.....	4	3	5	5	12	5	2	3	.....	.....	44
21. Progressive locomotor ataxia and general paralysis of the insane (80, 83)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	2
22. Cerebral hemorrhage, cerebral embolism and thrombosis (82)	64	86	.....	.....	.....	.....	.....	1	5	8	17	44	47	25	3	.....	150
23. Other diseases of the nervous system and of the organs of special sense (78, 79, 81, 84, 85, 87, 89)	14	13	4	.....	.....	2	3	1	1	5	3	3	4	1	.....	.....	27
24. Diseases of the heart (91, 92, 93, 94, 95)	275	188	.....	.....	2	1	3	11	13	19	87	113	131	79	4	.....	463

25. Other diseases of the circulatory system (96, 97, 98, 99, 100, 101, 102, 103)	26	33	1	.....	.....	.....	.....	.....	2	5	7	13	15	14	2	.....	59
26. Bronchitis (106)	9	1	1	.....	.....	.....	.....	.....	2	1	.....	2	2	2	.....	.....	10
27. Pneumonias (107, 108, 109)	58	42	20	3	3	1	.....	5	2	6	7	17	18	16	1	1	100
28. Other diseases of the respiratory system (tuberculosis excepted) (105, 110, 111, 112, 113, 114)	19	14	1	1	1	1	.....	1	1	4	7	6	4	4	2	.....	33
29. Diarrhea and enteritis (119, 120)	16	8	13	3	.....	.....	1	.....	3	1	1	1	1	.....	.....	.....	24
30. Appendicitis (121)	11	9	.....	1	1	1	3	2	3	1	1	6	.....	1	.....	.....	20
31. Diseases of the liver and biliary passages (124, 125, 126, 127)	16	26	.....	.....	.....	.....	.....	2	1	5	13	11	7	3	.....	.....	42
32. Other diseases of the digestive system (115, 117, 122, 123, 128, 129)	44	21	11	3	.....	5	1	2	4	3	11	9	12	4	.....	.....	65
33. Nephritis (130, 131, 132)	31	32	.....	.....	.....	.....	2	3	2	4	19	13	12	7	1	.....	63
34. Other diseases of the genitouinary system (133, 134, 136, 137, 138, 139)	27	9	.....	.....	.....	.....	.....	1	3	1	8	11	8	3	1	.....	36
35. Puerperal septicemia (140)	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
36. Other diseases of pregnancy, childbirth and the puerperal state (141, 142, 143, 144, 146, 148)	.....	11	.....	.....	.....	.....	.....	5	3	3	.....	.....	.....	.....	.....	.....	11
37. Diseases of the skin and cellular tissue, and of the bones and organs of locomotion (151, 152, 153, 154, 155, 156)	6	4	.....	1	.....	.....	1	.....	.....	.....	4	2	1	.....	1	.....	10
38. Congenital debility and malformations, premature birth and other diseases of early infancy (157, 158, 159, 160, 161)	65	33	94	1	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	98
39. Senility (162)	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	2	.....	5
40. Suicide (163, 164, 165, 166, 167, 168, 169, 170)	18	10	.....	.....	.....	.....	3	6	3	5	5	5	.....	1	.....	.....	28
41. Homicide (174, 175)	.....	2	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	2
42. Violent and accidental deaths (suicide and homicide excepted) (178, 179, 180, 181, 182, 183, 184, 186, 188, 189, 190, 193, 194, 195, 202, 203, 205, 207, 209, 210, 211, 212)	75	30	2	1	2	1	12	15	2	9	17	12	16	14	2	.....	105
43. Cause of death not specified or ill-defined (200)	1	1	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2
Totals	1040	849	154	22	16	23	49	79	90	150	326	387	374	197	21	1	1889

Street Cleaning and Scavenging Division

A. J. Douglas, Esq., M.D.,
Medical Health Officer,
City Hall, Winnipeg.

Dear Sir:

I have the honor to submit herewith the report of the Street Cleaning and Scavenging Division, for the year 1938:

Scavenging

The organic matter collected during the year averaged 214.1 lbs. per capita as against 205.4 for 1937. The total collected for the year showed an increase of 1,665,187 lbs. compared with the collection for 1937.

The Annual Spring Clean-up commenced April 25th and was completed May 21st, at a total cost of $13,188.55.

In July an International dump truck, Model D50, was purchased, replacing a Sterling truck which had been in service since 1920.

During the year the Department lost three horses by death and three by exchange, six new horses were purchased, bringing the total on hand as at December 31st, 1938, to 39 horses.

Incinerators

The tonnage destroyed at the Incinerators during the year 1938 showed an increase of 913 tons as compared with the previous year. The revenue earned showed a decrease of $1.18. Operating costs in 1938 showed an increase of $1,252.21.

The gross cost per ton for destruction amounted to $1.26 or an increase of 1c per ton as compared with the cost for 1937.

In October a new approach to the Saskatchewan Avenue Incinerator was constructed.

Street Cleaning

During the street cleaning season a total of 39,410 cubic yards of sweepings were collected and removed, or an average of 144.8 cubic yards per mile of paved streets.

The mileage cost for 1938 was $252.92 compared with $262.72 for 1937.

By authority of the City Council, the Department employed an average of 176.5 men per day, under the Dominion Work Plan, or a total of 228,850 man hours. Under the Advance Relief Scheme an average of 39.4 men per day were employed from July to November, or a total of 32,306 man hours. This was entirely in addition to the time worked by the Department's regular street cleaners.

The motor driven power flusher used 6,479,869 gallons of water in 1938, as compared with 8,180,019 gallons for 1937.

Wood Operations

During the year ending April 30th, 1938, the following quantities of cordwood were purchased:

Tamerac	259	cords	108	feet
Pine	24,256	"	115	"
Poplar	38,818	"	43	"
	63,335	cords	10	feet

Miscellaneous

During the year 1938, employees of this Division were involved in 103 accidents, aggregating a total loss of 548 days, or an average of 5.3 days per accident. The 1937 figures showed 105 accidents, with a total loss of 1299 days, or an avarage of 12.3 days per accident.

During the year two permanent employees retired on pension; three resigned; and one was called by death.

In conclusion I again wish to express my appreciation of the faithful work of the employees of this Division.

Respectfully submitted,

E. A. WOOD,

Chief, Street Cleaning and
Scavenging Division

REFUSE COLLECTION AND DISPOSAL AND STREET CLEANING, 1938

Summary

(a)	Personal Services	$248,549.43
(b)	Outside Services	1,118.67
(c)	Material, Supplies and Repairs	23,433.20
(d)	Equipment, Additions, and Replacements	7,024.67
(e)	Fuel, Water, Light and Power	3,522.21
(f)	Other Expenses	637.57
(h)	Truck and Auto Expense	17,448.79
(i)	Interest	3,825.00
(ii)	Sinking Fund	1,515.56
		$307,075.10

Expenditure by Divisions

C 8 REFUSE COLLECTION AND DISPOSAL.

C 8-1 Scavenging and Ash Removal:

(a)	Personal Services	$145,221.24	
(b)	Outside Services	332.65	
(c)	Material, Supplies and Repairs	16,845.14	
(d)	Equipment, Additions and Replacements..	7,024.67	
(e)	Fuel, Water, Light and Power	289.00	
(f)	Other Expenses	188.20	
(h)	Truck and Auto Expense	14,613.04	
			$184,513.94

C 8-2 Nuisance Ground Operating:

(a)	Personal Services	$ 4,808.79	
(b)	Outside Services		
(c)	Material, Supplies and Repairs	8.05	
(d)	Equipment, Additions and Replacements..		
(f)	Other Expenses	437.37	
			5,254.21

C 8-3 Crematories, Operation and Maintenance:

(a)	Person Services	$ 24,897.45	
(b)	Outside Services	20.00	
(c)	Material, Supplies and Repairs	5,264.67	
(e)	Fuel, Water, Light and Power	1,525.44	
			31,707.56

C 8-4	**Fixed Charges on Debenture Debt:**			
(i)	Interest	$ 3,825.00		
(ii)	Sinking Fund	1,515.56		
				5,340.56
	Total, Refuse Collection and Disposal			$226,816.27
D	**STREET CLEANING AND FLUSHING.**			
D 1	**Administration:**			
(a)	Personal Services	$ 6,244.36		
(b)	Outside Services	45.02		
(c)	Material, Supplies and Repairs	290.23		
(d)	Equipment, Additions and Replacements..			
(h)	Truck and Auto Expense	629.43		
			$	7,209.04
D 4	**Asphalt Pavement Cleaning:**			
(a)	Personal Services	$ 64,191.82		
(b)	Outside Services	1.00		
(c)	Material, Supplies and Repairs	853.72		
(e)	Fuel, Water, Light and Power	1,506.58		
(h)	Truck and Auto Expense	2,206.32		
				68,759.44
	MISCELLANEOUS.			
D 5-3	**Cutting Noxious Weeds:**			
(a)	Personal Services	$ 2,663.98		
(c)	Material, Supplies and Repairs	69.44		
(f)	Other Expenses	12.00		
				2,745.42
D 5-4	**Yards Maintenance:**			
(a)	Personal Services	$ 521.79		
(b)	Outside Services	720.00		
(c)	Material, Supplies and Repairs	101.95		
(e)	Fuel, Water, Light and Power	201.19		
				1,544.93
	Total, Street Cleaning and Flushing			80,258.83
	Total, Refuse Collection and Disposal			226,816.27
	GRAND TOTAL			$307,075.10

GARBAGE COLLECTION, 1938

Month	Trucks and Trailers		City Teams and Singles		Hired Teams		Combined Totals	
	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.
Jan.	946	2,875,480	144	350,400	43	123,360	1,133	3,349,240
Feb.	875	2,524,800	156	379,980	40	115,360	1,071	3,020,140
Mar.	1,015	3,136,747	137	348,510	43	126,450	1,195	3,611,707
Apr.	970	3,137,040	125	327,060	46	139,050	1,141	3,603,150
May	1,006	3,593,510	127	339,020	47	164,170	1,180	4,096,700
June	985	3,720,370	155	447,530	53	200,540	1,193	4,368,440
July	952	3,552,970	155	439,170	46	180,040	1,153	4,172,180
Aug.	1,052	4,016,430	155	445,650	51	197,510	1,258	4,659,590
Sept.	1,022	4,243,180	151	431,460	47	194,150	1,220	4,868,790
Oct.	985	3,833,970	140	394,080	48	172,920	1,173	4,400,970
Nov.	988	3,250,980	139	370,700	45	130,520	1,072	3,752,200
Dec.	1,023	3,364,710	149	393,690	44	125,460	1,216	3,883,860
	11,819	41,250,187	1,733	4,667,250	553	1,869,530	14,005	47,786,967

Table Showing Average Weight per Load

	Number of Loads	Total Weight	Average Wgt. Per Load (Lbs.)	Percentage of Total Weight
Trucks & Trailers	11,819	41,250,187	3,462	84.04%
City Teams and Singles	1,733	4,667,250	2,668	9.70%
Hired Teams	553	1,869,530	3,380	6.26%
	14,005	47,786,867		100%

COLLECTION OF INCOMBUSTIBLE REFUSE, 1938

Month	Trucks and Trailers		City Teams and Singles		Hired Teams		Combined Totals	
	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.
Jan.	1,539	7,540,320	418	1,507,350	1,917	6,464,990	3,874	15,512,660
Feb. ...	1,557	6,450,110	346	1,230,420	1,157	4,641,660	3,060	12,322,190
Mar. ..	3,284	13,251,180	256	716,540	1,314	5,397,040	4,854	19,364,760
Apr. ..	2,450	11,038,170	216	564,510	608	1,185,130	3,274	12,787,810
May ...	5,161	29,614,320	214	638,880	912	3,625,300	6,287	33,878,500
June ..	2,210	7,421,770	171	456,930	206	716,800	2,587	8,595,500
July ...	2,661	8,457,940	174	427,460	187	637,557	2,593	9,522,957
Aug ...	2,552	8,104,430	246	426,050	185	710,120	3,092	9,240,600
Sept. ..	2,531	7,426,970	177	498,370	144	523,870	2,852	8,449,210
Oct. ...	3,001	9,435,240	198	403,710	256	1,015,090	3,455	10,854,040
Nov. ...	1,965	6,466,550	229	531,740	151	645,500	2,345	7,643,790
Dec ...	1,443	5,562,110	84	237,280	149	673,710	1,676	6,473,100
	30,034	120,769,110	2,729	7,639,240	7,186	26,236,767	39,949	154,645,117

Table Showing Average Weight per Load

	Number of Loads	Total Weight	Average Wgt. per Load (Lbs.)	Percentage of Total Weight
Trucks & Trailers	30,034	120,769,110	4,201	78.08%
City Teams and Singles	2,729	7,639,240	2,798	4.08%
Hired Teams	7,186	26,236,767	3,799	17.84%
	39,949	154,645,117		100%

ELMWOOD INCINERATOR OPERATIONS, 1938

Month	City Garbage		Private Garbage		Total		Revenue Earned
	No. Loads	Weight Lbs.	No. Loads	Weight Lbs.	No. Loads	Weight Lbs.	$ c
Jan.	481	1,348,130	4	3,670	485	1,351,800	$ 4.12
Feb.	453	1,244,710	10	10,860	463	1,255,570	15.76
Mar.	535	1,583,830	8	25,280	543	1,609,110	44.36
Apr	407	1,259,250	13	25,550	420	1,284,800	40.94
May	496	1,746,310	16	6,500	512	1,752,810	9.95
June	521	1,966,060	19	20,580	540	1,986,640	38.08
July	488	1,936,980	16	17,700	504	1,954,680	32.24
Aug.	530	2,116,280	27	27,960	557	2,144,240	46.70
Sept.	515	2,137,860	27	28,560	542	2,166,420	52.21
Oct.	553	2,101,060	30	35,350	583	2,136,410	66.26
Nov.	533	1,650,460	28	34,140	561	1,684,600	65.88
Dec.	518	1,488,410	11	6,900	529	1,495,310	7.96
	6030	20,579,340	209	243,050	6239	20,822,390	$424.46

SASKATCHEWAN AVENUE INCINERATOR OPERATIONS, 1938

Month	City Garbage		Private Garbage		Total		Revenue Earned
	No. Loads	Weight Lbs.	No. Loads	Weight Lbs.	No. Loads	Weight Lbs.	$ c
Jan.	652	2,011,110	129	152,360	781	2,163,470	$ 64.65
Feb.	618	1,775,430	126	140,500	744	1,915,930	60.95
Mar.	684	2,062,660	143	164,040	827	2,226,700	92.25
Apr.	734	2,343,900	161	189,330	895	2,533,230	140.10
May	684	2,350,390	164	184,680	848	2,535,070	133.20
June	696	2,436,370	188	249,800	884	2,686,170	177.90
July	665	2,235,200	161	169,310	826	2,404,510	92.50
Aug.	728	2,543,310	183	225,490	911	2,768,800	132.80
Sept.	705	2,727,930	173	177,090	878	2,905,020	98.00
Oct.	620	2,299,770	165	196,260	785	2,496,030	109.15
Nov.	639	2,101,740	125	153,090	764	2,254,830	62.05
Dec.	698	2,395,450	121	148,810	819	2,544,260	57.90
	8123	27,283,260	1839	2,150,760	9962	29,434,020	$1221.45
						Sale of Steam	1200.00
							$2421.45

REPORT OF REFUSE DEPOSITED ON ELMWOOD NUISANCE GROUND, 1938

Month	Tins and Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.
Jan.	780	2,798,290			135	387,230	915	3,185,520
Feb.	691	2,468,320			141	432,570	832	2,900,890
Mar	837	3,239,050	298	1,715,450	190	552,910	1,325	5,507,410
Apr.	560	1,966,990	169	842,350	167	509,750	896	3,319,090
May	1821	7,329,280	240	1,146,310	199	640,710	2,260	9,116,300
June	369	1,162,740	382	1,298,780	175	525,940	926	2,987,460
July	380	1,208,530	501	1,780,640	204	700,900	1,085	3,690,070
Aug.	380	1,163,270	559	1,763,540	156	525,260	1,095	3,452,070
Sept.	375	940,230	605	1,569,730	134	435,920	1,114	2,945,880
Oct.	263	701,130	676	2,097,290	129	416,770	1,068	3,215,190
Nov.	367	1,102,480	328	1,036,550	123	387,890	818	2,526,920
Dec.	285	887,610			130	390,390	415	1,278,000
	7108	24,967,920	3758	13,250,640	1883	5,906,240	12,749	44,124,800

REPORT OF REFUSE DEPOSITED ON SASKATCHEWAN AVENUE NUISANCE GROUND, 1938

Month	Tins and Ashes Hauled by City		Street Sweepings		Privately Hauled Refuse		Combined Totals	
	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.	Loads	Weight in Lbs.
Jan.	1,528	6,371,770			247	698,540	1,775	7,070,310
Feb.	1,181	4,918,870			225	650,970	1,406	5,569,840
Mar.	1,332	5,313,880	119	778,980	259	737,130	1,710	6,829,990
Apr.	1,391	4,744,750	227	1,234,870	279	823,180	1,897	6,802,800
May	3,081	10,638,260	208	1,043,850	397	929,880	3,686	12,611,990
June	1,326	3,621,400	174	982,580	290	866,820	1,790	5,470,800
July	1,163	3,139,110	220	1,234,210	385	884,240	1,768	5,257,560
Aug.	1,303	3,310,810	165	883,980	336	944,160	1,804	5,138,950
Sept.	1,551	3,623,900	56	362,850	313	842,030	1,920	4,828,780
Oct.	1,632	3,952,990	118	698,530	297	806,570	2,047	5,458,090
Nov.	1,336	3,210,460	48	326,300	246	760,230	1,630	4,296,990
Dec.	1,224	4,727,590			253	808,550	1,477	5,536,140
	18,048	57,573,790	1335	7,546,150	3527	9,752,300	22,910	74,872,240

These figures do not include Ashes and Street Sweepings deposited on private fills.

MISCELLANEOUS DATA

Month	Lbs.St.Swpgs. Deposited on City Dumps	Lbs.St.Swpgs. Deposited on Private Fills	Lbs. Ashes Deposited on City Dumps	Lbs. Ashes Deposited on Private Fills	Gallons Water used Flushing Streets
Jan. ..	.....	.....	7,560,620	6,342,600	.....
Feb. ..	.....	.....	6,278,640	4,935,000	.....
Mar. ..	2,808,450	4,369,040	4,960,450	6,215,000	.....
Apr. ..	2,049,980	2,659,000	4,411,360	1,340,400	500,855
May ..	2,233,100	1,442,000	16,434,310	2,891,800	1,054,093
June ..	1,974,280	1,466,000	1,762,940	64,000	1,540,244
July ..	2,596,880	1,408,500	1,339,510	51,000	1,646,848
Aug. ..	2,364,960	2,107,000	965,110	12,000	1,407,908
Sept. ..	2,223,150	1,936,500	1,131,890	16,000	329,921
Oct. ..	3,281,080	844,000	1,492,100	123,100	.....
Nov. ..	998,970	617,000	2,276,970	721,000	.....
Dec. ..	.....	.....	5,388,230	858,000	.....
	20,531,850	16,849,040	54,002,130	23,029,900	6,479,869

Figures for Street Sweeping and Ashes are included in Table of Total Collection of Incombustible Refuse.

COMPARATIVE TABLES

Garbage Collection and Incombustible Refuse

Year	No. Loads Collected	Pounds of Garbage	No. Loads Collected	Pounds of Incombustible Refuse
1926	11,550	40,479,180	6,034	15,894,150
1927	13,826	42,325,430	6,682	18,579,020
1928	13,313	43,896,090	9,571	24,877,715
1929	13,048	43,374,665	11,094	28,719,945
1930	13,557	45,814,030	11,396	33,189,930
1931	13,611	50,098,730	13,147	36,291,661
1932	13,222	48,329,450	14,237	49,928,030
1933	13,561	46,236,370	19,942	70,734,590
1934	15,776	49,211,690	18,849	66,773,120
1935	15,764	49,733,270	22,126	82,268,400
1936	14,083	46,001,350	24,287	86,042,760
1937	14,126	46,121,780	38,427	157,475,330
1938	14,005	47,786,967	39,949	154,645,117

REVENUE COLLECTED

Month	Incinerator No. 2	Incinerator No. 3	Sale of Steam	Total
January	$ 52.98	$ 62.24	.....	$ 115.22
February	23.08	57.26	.....	80.34
March	64.24	47.34	.....	111.58
April	47.97	98.84	$1,200.00	1,346.81
May	39.08	108.59	.....	147.67
June	20.28	159.11	.....	179.39
July	44.89	117.60	.....	162.49
August	32.62	94.65	.....	127.27
September	13.54	117.09	.....	130.63
October	47.04	161.11	.....	208.15
November	60.02	94.35	.....	154.37
December	67.73	70.49	.....	138.22
	$513.47	$1,188.67	$1,200.00	$2,902.14